Floristic analysis of vegetation site data from the Burrup Peninsula, Dolphin, Angel and Gidley Islands with data from Cape Preston the Chichester Ranges and other localities

Volume 2 of 3

A flora, vegetation and floristic survey of the Burrup Peninsula, some adjoining areas and part of the Dampier Archipelago, with comparisons to the floristics of areas on the adjoining mainland

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- These three volumes titled ***"A flora, vegetation and floristic survey of the Burrup Peninsula, some adjoining areas and part of the Dampier Archipelago, with comparisons to the floristics of areas on the adjoining mainland – Prepared by M.E. Trudgen & Associates for The Department of Mineral & Petroleum Resources"*** were collated from original files in .doc and .xls formats supplied by Mr. Malcolm Trudgen on 14 August 2020. Some minor corrections were also made to the "Table of Contents" and "page numbers" in the texts.
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1.0 INTRODUCTION

1.1 Purpose of this volume

The purpose of this volume is to use the detailed records of flora occurrence in the 50 by 50 metre quadrats and transects recorded in May and June 2000 (see volume three) to:

- understand the variation of the vegetation within the core study area (Burrup Peninsula, Dolphin Island, Gidley Island and Angel Island);

- understand the variation of the vegetation of the core study area in wider, subregional to regional, contexts using the available data of a suitable standard.

To do this, the PATN computer package has been used to examine the floristic data collected during the present study combined with data collected during two other studies. This examination includes the definition of different levels of floristic community types (units of flora occurrence), although the units defined are not strictly floristic, in that the cover (a measure of the abundance of the individual species) of each species has been used rather than just species presence/absence.

1.2 Relationship to other volumes

Volume one covers:

- the aims of the study;

- introductory material (geology, soils, land use, definitions, discussion of approaches to studying vegetation);

- the results of the flora survey carried out during the study;

- a map of the vegetation of the Burrup Peninsula

- description of the vegetation mapping units; and

- discussion of the overall results of the survey.

Volume three contains the site data recorded during the study and floristic data for the sites recorded by CALM on the Burrup Peninsula (the plant collections for these sites were identified as part of the current study to include any extra species recorded and to make

the data available for analysis. The photographs of the sites recorded are also included in Volume three.

1.3 Location of the study sub-areas and additional areas used for comparison

As noted above, the core study area for the survey consists of the Burrup Peninsula, Dolphin Island, Gidley Island and Angel Island. For comparison purposes, additional sites were recorded during this study in sites of similar geology and form:

- along the North West Coastal Highway in the Whim Creek area (about 100 kilometers north-west of Karratha);

- in the hills ("Karratha Hills") adjacent to Karratha; and

- south of Karratha along the Hamersley Iron rail line, as far south as the Harding Dam area.

These additional sites were mainly located in rockpile vegetation, as developing an understanding of the variation of this vegetation in the vicinity of the Burrup Peninsula was a particular aim of the report. Restrictions on time limited the number of sites that could be recorded in these "control" areas.

To provide a better balance in the analysis, both in terms of geographic spread and habitat spread, between the core survey area sites and sites used for comparison, data has been included from two other studies. The first of these datasets is about 120 sites recorded in the Cape Preston area, about 50 kilometres south-west along the coast from Karratha. The second additional dataset is about 250 sites from the Chichester Ranges area and adjacent parts of the areas north of the Chichester Escarpment, as far north as the Harding Dam.

1.4 Comparability of the additional datasets

The data from Cape Preston was recorded using the same methodology as the sites recorded for this study (see Volume 1) and the identifications have been reviewed to ensure that this aspect of the data set is closely comparable. That is, the sites are a combination of 50 by 50 metre squares (in areas where uniform sites of this size could be located), sites of similar total area but different shape (eg. 60 by 40 metres) where this could be obtained and transects of 100 metres along narrow habitats such as flowlines on hill slopes (with the width of the flowline vegetation recorded). The sites were also recorded in the same year and season as the sites recorded for the current survey.

The data from the Chichester Ranges area is from Trudgen & Casson (1998) and was recorded at releves rather than quadrats. The identifications are of a similar, but somewhat lower reliability as it has not been possible to completely review them as was done for the Cape Preston specimens. However, the level of discrepancy is low, and to the degree possible, has been taken into account in the analyses carried out by combining or excluding taxa as thought necessary.

1.4 Scope and use of the analyses

While the main intent of the analyses carried out was to enable the variation of the vegetation in the core study area to be understood and placed in a regional context, it has also involved the definition of floristic community types from the whole data set. Any use of these floristic community types for other purposes should take into account the relative (and absolute) reliability of the datasets and the geographic distribution of the sites used to assess their suitability for other use. These limitations are discussed below.

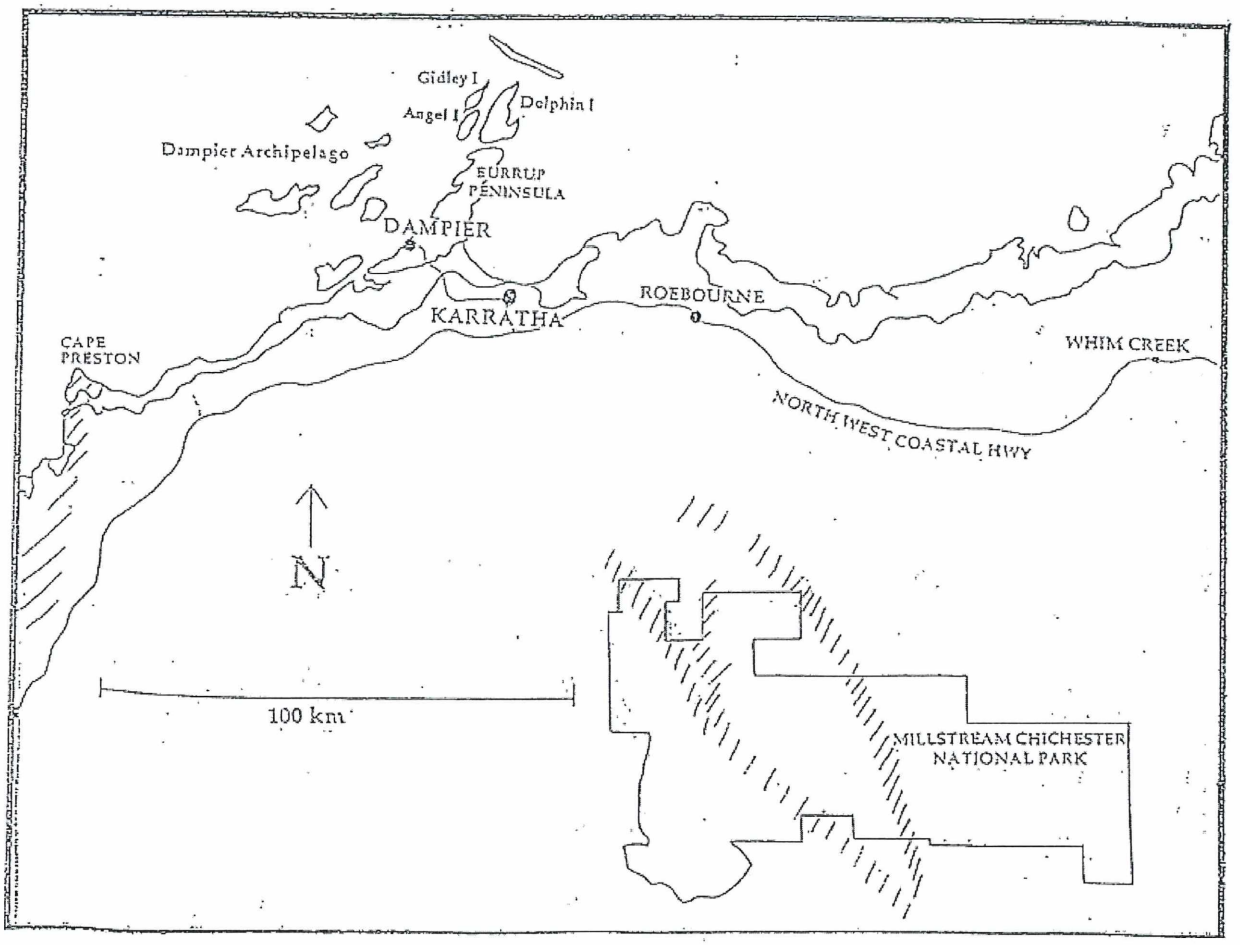


Figure 1. Location of the current study sub-areas and of the study areas where data sets from other studies used for comparisons were recorded. The Cape Preston and Chichester range survey areas are indicated by the shading.

2.0 DISCUSSION OF THE APPROACH ("FLORISTIC") TAKEN TO ANALYSING THE STUDY AREA VEGETATION AND PROVIDING ITS REGIONAL CONTEXT

2.1 Background

The task involved in classifying vegetation, for all but very small or relatively uniform areas, is to take very considerable, if not enormous, variation in species composition and abundance and sort this into meaningful entities, that is ones that have some actual existence. The core of this task has been attempts to define "plant communities" or basic units of vegetation consisting of closely similar stands (or single occurrences) and classify these into higher units such as "vegetation associations" and "vegetation formations".

Various approaches have been used in vegetation studies, with differing emphasis on different attributes of vegetation such as species composition, structure or physiognomy, relative abundance of different species and what have been perceived as important or indicator species. Much of this work fell down in being unable to deal with the scale of the problem, with much of the work being relatively subjective and the results being difficult to separate from the methods used. An additional problem has been the difficulty of applying consistent concepts to define vegetation units in very different vegetation systems and in different places.

In the pursuit of more complete and robust circumscriptions of vegetation units, techniques were needed which were not only more sophisticated, but were capable of dealing with the datasets involved. The development in recent years of computer based methods to cope with large data sets has seen the rise of numerical classification as an additional tool in the recognition of plant communities. These techniques are not a panacea for all the difficulties, but when well used are at least capable of addressing the scale of the problem in ways which otherwise would only be possible with enormous effort.

A major use of numerical techniques has been the "floristic" approach to studying vegetation such techniques have been used to relate the floristic composition from different stands to each other in an attempt to illuminate the significance of the overall variation in floristic composition in a dataset. The approach used in this study is not strictly floristic, as cover (a measure of abundance of species) has been used as well as species presence/absence. As, for a region at least, structure is strongly related to species abundance, it is arguable that using species presence/absence and cover includes the three major attributes of vegetation: species composition, abundance and structure in the classification developed.

In different vegetation, classifications developed from just floristics and from floristics and cover can give quite similar or quite different groupings in the vegetation.

2.2 Types of numerical models

There are two broad classes of approach for representing the variation in object (vegetation stand) attributes: classification and ordination. Classification attempts to place the objects into discrete "boxes". Ordination attempts to represent the variation between objects by calculating scores along a number of axes. The concept is that there are techniques which "choose", "appropriate", axes to represent the greatest differences first. These can be portrayed graphically to represent relationships between objects. These techniques each have their own assumptions, advantages and disadvantages. They should be considered as complementary not alternatives.

2.2.1 Classification

Many mathematical methods have been developed to define (classify) abstract (floristic) units recognisable in vegetation. Some methods attempt to identify discriminating attributes (species) that might be used as if in a taxonomic key to define progressively (and hierarchically) more and more homogeneous (floristic) units. Typically these are called divisive classifications and may use one (monothetic) or a number of (polythetic) attributes (species) in each division. This approach tends to not be favoured for species rich vegetation with low dominance. This approach tends to not be very successful for species rich vegetation with no clear dominance by individual or groups of species. Other numerical classification approaches tend to start from the object (site data) and aggregate these with most similar object.

Fundamental to the classification technique is the association matrix that describes how similar each object (ie. site flora list) is to each other object. Similarity between pairs of objects is a function of the attributes (species) they share and the attributes (species) they do not share. It may also include or ignore abundance measures (such as cover, biomass or frequency scores for individual species). Different formulas have been found to emphasise different characteristics of the data and might, therefore, be useful in different situations. It is implicit that the formulae used should generate similarity coefficients that can be considered to reflect the "ecological distance" between objects. Ecological distance is the "real" similarity between objects.

Detailed studies of the robustness and suitability of such formulae are numerous (eg Faith et al 1987) and indicate they are effective in producing a result that has a strong relationship to reality.

The association matrix (or at least an association coefficient) is just the first step in agglomerative techniques. There are as many methods of agglomerating as there are

methods for calculating similarity coefficients. Two basic systems are used: hierarchical and non-hierarchical.

Hierarchical agglomeration techniques progressively create fewer and fewer abstract groups of objects until all are grouped into one. At each level, the groups take on the "combined" attributes of the included objects (sites in the case of vegetation). As a result of the mode of generation of them, the new groups become more and more heterogeneous as new objects are joined. In this methodology, once an object (site) joins a group, it remains with it until there is just one group.

Non-hierarchical methods attempt to divide up ecological space by identifying nodes or areas of concentrations of objects in multi-dimensional space; effectively by a series of "cookie cutters" or objects defining a portion of the multi-dimensional space representing the total variation in the data set. One such technique involves many iterations to "place" the "cookie cutters" in a way to achieve an "optimal solution". The use of different size "cookie cutters" implies classifications with different degrees of similarity. While there might be an expectation that objects grouped together at a certain similarity will stay together when the similarity is widened (to include objects that are less similar), this need not be the case, hence this method is described as non-hierarchical in nature.

Ordination

Implicit in any ordination technique, and there are many, is that a coefficient can be calculated to represent the ecological distance between objects. The variation between objects can be represented in multi-dimensional space. This abstract space is defined to have n-1 axes where n is the number of objects. Also implicit is that the distribution of objects in this space is not random and therefore, optimum solutions can be computed which shows the much of the differences can be represented on just a few axes.

Ordination is particularly useful in attempting to describe the influence of environmental variables. It, however, has difficulty in representing relationships between data sets that contain objects that have little or nothing in common.

2.3 Sampling of Floristic Composition

A stand of vegetation is a relatively uniform area made up of a collection of individuals of a number of species in recurring combinations where the individuals have finite sizes and separation. A sample area, typically of a specific size, is recorded as a representation of the floristic composition of a stand of vegetation. It is axiomatic for a discrete stand that, as the area of the sample (often a square or quadrat) increases, the total number of species

encountered will increase. At first the increase is rapid, then after an often characteristic size, the rate of increase in the number of species declines as the new individuals are mostly of species already recorded.

Choosing the sample area to be recorded is a compromise between the area recorded being big enough to be adequate and small enough to be cost effective to collect, without loosing characteristic information. Small samples tend to miss some of the species characteristic of the stand, while large samples run the risk of crossing stand boundaries as well as increasing the number of randomly occurring (see Section 10.2.1) species recorded. An area that adequately samples the floristic composition of a stand, with out being un-necessarily large is referred to as the "minimal area". The minimal area of a particular stand depends on the type of community and species and can vary widely from less that $1m^2$ for lichens and herbs to greater than 500 m^2 for rainforests. It is in part a function of the size of the plants forming the vegetation of the stand sampled and in part a function of the inherent heterogeneity of the ecosystem.

Guidelines or rules have been developed to determine the minimal area of a stand or of a broader unit of vegetation. A number of studies have determined this to be in the order of 100 to 200 m^2 for shrub dominated vegetation of south-western Australia and a standard size of $100m^2$ (a ten by ten metre quadrat) has a 20 year history within the Department of CALM and related workers. Research by CALM (S. v Leeuwen pers. com.) and substantial field experience by one of us indicates that in most habitats in the Fortescue Botanical District, that a 50 by 50 metre quadrat adequately samples the floristic variation from this point of view. However, it is often not possible to situate a quadrat of this size in linear habitats such as creek lines. Therefore, in the current study areas (and in the other studies from which data has been used for comparison) in these habitats, transects of 100 metres length and the width of the stand have been used for such habitats, as experience has shown that this gives a good sample of the flora composition in most such habitats in the Fortescue Botanical District.

The concept of minimal area is difficult to apply in some environments where the stand size is relatively small, or the species are large in relation to the stand size. For example, vegetation on Gilgai (cracking clay) environments and the rockpile vegetation in the survey areas often occur as small patches that individually are too small to record a representative floristic sample from. In such cases the combining the flora records for several adjacent patches can be used to overcome the problem.

The methodology of the recording of the sites for this study is given in volume 1. The records of the site descriptions and species occurrences were entered into an MS Access database to facilitate efficient formatting of the data sets for the classification and interpretation. The species were recorded using the CALM established "Taxon ID" in a similar style to the CALM recording system "MAX".

3.0 LIMITATIONS

The most significant limitations of the study are:

- all of the vegetation recording sites have only been recorded once;

- the sites recorded In the Chichester Ranges area (see Trudgen and Casson 1998) were recorded in a different year to those in the other studies, with the different rainfall experienced likely to have had some impact on species availability;

- the Chichester Range sites of Trudgen and Casson (1998) were releves (unconfined sites, ie they were not measured out and pegged) and were recorded somewhat less intensively;

- the geographical distribution of the sites is not particularly even, being influenced by accessibility problems, individual study aims and time limitations.

The fact that the sites have all only been recorded once means that some species that occur at individual sites were possibly not available to be recorded at those sites at the time that the sites were visited (mostly annuals that had not germinated due to the time of the year, or insufficient rainfall). For the different datasets, the impact of this could be somewhat different, with the dataset of Trudgen and Casson (1998) recorded over several months and in a different year being the least consistent internally and with the other sets. In contrast, the Cape Preston data and the data collected for the current study are very comparable as they were collected in the same season of the same year, using the same methodology. As the collecting season was good, these datasets are relatively good, as well as comparable.

It should be noted that the omission of the species that may not have been available would have had somewhat lesser impact on the classification than would first appear, as few would have much cover and the perennials with higher cover were available.

The fact that the sites recorded for the study of Trudgen and Casson (1998) were releves and were recorded less intensively again reduces the comparability of this dataset to the others. However, the species mostly likely to have been missed were the annuals and the small perennials. Reducing the impact of this limitation was that many of the sites in the part of Trudgen and Casson's survey area used in the present analysis are species poor, so the lesser time spent in the sites would have less impact on the completeness of the lists

recorded. Sites in this dataset known to be incomplete, or with very low diversity recorded for them were excluded from the analyses.

There are two aspects to the limitation of the geographic spread of the sites. Firstly, the sites are in three main clusters. Thus they do not sample all parts of the variation in the region covered and probably does not include some vegetation significantly different from that sampled. However, this does not affect the delimitation of vegetation types in the core study area, it just reduces the certainty of how they relate to the vegetation of the surrounding region. Secondly, the sites in the core survey area of the current study (Burrup Peninsula, Gidley, Angel and Dolphin Islands) are not evenly spread due to access difficulties and time limitations. However, this limitation is not likely to be to the degree that major variation has not been sampled, although the overall distribution (and total range of variation) of major floristic groups may not have sampled.

4.0 DISCUSSION OF THE ANALYSES CARRIED OUT

To provide a regional context for the core survey area (the Burrup Peninsula, Angel, Gidley and Dolphin Islands) the data from the sites recorded in this area was combined with the data recorded during the survey from the "control " areas (Whim Creek, Karratha Hills, the Harding Dam area and adjacent to the Hamersley rail line) and data from two other survey areas (Cape Preston and the Chichester Range parts of the West Angelas ERMP botanical survey). This gave a data set including records from 605 sites and 715 taxa from several study areas, for the analysis.

Incorrect identifications can have a serious influence on the results of numerical classifications of floristic data sets and care was taken to make specimen collections and check their identity consistently. The identification of the Cape Preston specimens was reviewed as part of a separate exercise to ensure they were compatible with those for specimens collected for this survey. However, it was not possible to review the identification of the specimens for the sites included from the Chichester Ranges.

Therefore, to minimise the risk of false differences, records of species with uncertain identification (eg. *Acacia* sp.) were omitted from the data analysed. In other cases where records in the under different names were not definitely identified they were combined for the analysis as a "complex". Table 1 (see next page) provides the list of those merged.

After combining the taxa as described above, the overall data set was prepared in four forms to be ready for the analyses to be carried out:

- sites as rows, presence/absence;

- sites as rows, % cover (as cover code);

- species as rows, presence/absence; and

- species as rows, % cover (as cover code).

The cover codes were based on the Domina Kranjina classes (Mueller Dombois & Ellenberg 1974) . This is close to the square root of the cover. It was chosen for the classification because, for example, 10% difference between 0 and 10% is considered muchmore significant than the 10% difference between 70 and 80%.

Each of these forms of the data was analysed using components of the PATN computer package (Belbin 1987). The PATN package is an integrated group of computer programs specifically designed for interrogating biological data sets such as the data set constructed for the current report.

The following PATN components were used:

- ASO (with the default values used for sites, and "Twostep" used for species);

- FUSE;

- DEND;

- GDF (50 and 200-Groups for sites - after preliminary investigation and 100 groups for species).

Table 1: Taxa combined for the analyses carried out for this report.

Taxon	**Combined with:**
Acacia coriacea subsp. coriacea	Acacia coriacea
Acacia coriacea subsp. pendens	Acacia coriacea
Acacia elachantha golden hairy variant	Acacia elachantha
Alysicarpus muelleri	Alysicarpus rugosus
Boerhavia coccinea (form A)	Boerhavia coccinea
Boerhavia coccinea (form B)	Boerhavia coccinea
Citrullus aff. lanatus	Citrullus lanatus
Clerodendrum tomentosum var. lanceolatum	Clerodendrum tomentosum
Eriachne mucronata (typical form)	Eriachne mucronata
Evolvulus alsinoides	Evolvulus alsinoides var. villosicalyx
Ficus platypoda var. A	Ficus platypoda
Ficus platypoda var. B	Ficus platypoda
Ficus platypoda var. D	Ficus platypoda
Ficus platypoda var. E	Ficus platypoda
Ficus platypoda var. F	Ficus platypoda
Ficus platypoda var. G	Ficus platypoda
Ficus platypoda var. minor	Ficus platypoda
Ficus platypoda var. platypoda	Ficus platypoda
Gossypium australe	Gossypium australe (Burrup Peninsula form)
Hakea suberea	Hakea lorea ssp. lorea
Mukia aff. maderaspatana (3) (green scabrid rounded)	Mukia maderaspatana
Mukia aff. maderaspatana sp. A	Mukia maderaspatana
Mukia aff. maderaspatana sp. D	Mukia maderaspatana
Mukia aff. maderaspatana sp. E	Mukia maderaspatana
Neptunia aff. dimorphantha (M27)	Neptunia dimorphantha
Scaevola spinescens (narrow form)	Scaevola spinescens
Triodia pungens	Triodia epactia
Triumfetta appendiculata	Triumfetta appendiculata (Whim Creek form)

The results from these components were imported into to a Microsoft Access database, for combining with other data and generating interpretation.

The analyses were designed to compare the vegetation of the Burrup core study area with vegetation, including a range of apparently similar and different types, from other parts of the adjoining area of surrounding region. They were not designed to generate a definitive classification of the vegetation of this part of the Pilbara, although a necessary product has been generation of an interim classification of this type.

For the purposes of the study, a classification of sites based on a combination of dominant species and floristic composition was required. The classification of sites using cover is likely to assist in producing such a product, as cover is a measure of biomass and hence dominance. The robustness of the classification was investigated by comparing the results of this classification with other classifications of the data set. This was done qualitatively, principally with cross tabulation of the data or summaries of the data. A few examples of these investigations are provided.

The large number of groups in the classification of the sites produced, while somewhat arbitrary, is a reflection of the diversity of the data being analysed. Some thought was put into the number of groups produced, with a two level classification of fifty higher order groups and two hundred groups decided on. Factors taken into account in deciding on these numbers included:

- the large range of vegetation sampled;

- the diversity of habitats sampled;

- the earlier recognition of fifty groups in the Cape Preston subset of the overall dataset, which accorded well with the previous classification of the vegetation of this area by intuitive sorting.

The dendrogram (Appendix 2) for the classification of sites using cover data shows that there is very significant variation in the dataset. The values on the horizontal scale of the dendrogram at which the 200-Group level groups are defined roughly correspond (for both the cover data and presence absence data) to the values for the definition of the Floristic Community Type of Gibson *et al* (1994). That study was based on a similar sized data set, but which sampled a smaller range of geology and geomorphology. This suggests that the 200 group level units of this study are defined at approximately the same level as

the floristic community types of Gibson *et al* (1994). The much greater number of units defined in the current study reflecting the greater range of geology and geomorphology sampled.

Additionally, the 200 group level is roughly the same level of partitioning of the data found to be appropriate for the Cape Preston area subset of the dataset, for which about 50 vegetation units were defined intuitively and found to correspond well to an analysis using PATN. Forty-three of the 200-Groups in the present classification are from Cape Preston.

Inspection of the dendrogram suggests that sub-groups could be defined below the 200 group level, however, the number of sites available in most groups is inadequate to do so with confidence.

The analysis at the fifty group level was carried out to define some of the broad patterns in the data. At this level there appeared to be relative consistency in the composition of the vegetation dominated by the more commonly dominant species. As the groups are further joined into a smaller number of groups, the groups become more heterogeneous and those joining are "forced" to join.

Table 2, shows how well the groups from the 50-Group cover classification of sites correspond with the 50-Group presence/absence classification of sites. The table shows varying degrees of clustering. The patterns show that the high Cover group numbers (> Group 20) correspond well in both classifications. The lower Cover groups (< Group 15) do not correspond well to the presence/absence classification. These groups are principally from the West Angelas data sets. Importantly, these groups tend to form a consistent "super group" within which the "reallocation" is usually confined.

This has been summarised in Table 3. This table shows that there are 35 Groups from the cover classification at the fifty group level with 5 or more sites of which 25 strongly correspond to groups from the presence/absence classification.

When this exercise is repeated with the 200-Group level groups, the correspondence improves. Table 4 is a portion corresponding to the 24 cells in the top left hand corner of Table 2 and shows that the apparent randomness in Table 2 is reduced when the comparison is made at the 200-Group level. Table 5 (corresponding to Table 3), shows that of the 38 Groups with 5 or more sites, 23 are strongly corresponding.

These comparisons of the different analyses carried out show that there is significant correspondence (similarity) between the classification including cover and the classification based on presence/absence only. Because of the degree of correspondence, it was concluded that it was appropriate to continue the analysis using the site and species classification with cover included.

The correspondence (or fidelity) of species for sites groups can be inferred from Appendix 3, which is a tabulation of sites by species with the cover code of each occurrence shown in the cells (or two way table). This appendix is summarised in Table 6, which is the count of the occurrence of species in the sites for each 50 group site group and a 100 group species group.

Table 2: Cross tabulation of Site classification from Cover class data and from Presence/absence data (both at the 50 Group Level). Each cell is the number of sites classified as the corresponding row and column.

	Presence / absence groups																																																		
Cover Group	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	Predominant area in Cover classification
1	8	7	1	4			3	7	1	14	4	9	4	1	1		5																1																		Chichester
2	5	2	4	1		11	14	1										2																																	Chichester
3				3																																															Chichester
4					1										1	1									1																										Chichester
5	1		2			1																											1																		Chichester
6	2			1			1				1		2																																						Chichester
7										1	1	5																																							Chichester
8									3				1			1	2			1																															Chichester
9										1		1				6	7																																		Chichester
10			2		1	2				1	3					4		5																																	Chichester
11														1	4																																				Chichester
12						1	3											2		2																															Chichester
13					1													11	2	2																															Chichester
14																1		2			2										1																				Chichester
15									1									1			1										23																				Chichester
16																						1																													Chichester
17																															1		1																		Chichester
18									1																								1	1																	Chichester, Burrup Peninsula
19																								1																											Chichester
20																																				1															Chichester
21																																				7															Chichester
22																																				7															Chichester
23																																		2																	Chichester, C Preston
24																																								3											C Preston
25																																					3	1													C Preston, Burrup & Isls
26																																						7	1												C Preston, Burrup & Isls
27																																							1												Burrup & Isls
28																																						5													Burrup & Isls
29																																							2					1							C Preston, Burrup & Isls
30																																													1				10		C Preston
31																																																	2		C Preston
32																												1		1																				11	C Preston, Burrup & Isls
33																																10																			C Preston
34																																											4		3						C Preston
35																																												2		1					C Preston
36																																													7	2	1				C Preston
37																										2																			1		22	24			C Preston, Harding Dam
38																																															1	9			C Preston
39								1													5																														Chichester
40									3																																										Chichester
41																							7																												Whim Creek
42																												8																							Burrup & Isls
43																												1	8										1												Burrup & Isls
44																					1								41													7									Burrup & Isls
45																														16																					Harding Dam, HR, KH
46																																									6	38									Burrup & Isls
47																													1										3			14									Burrup & Isls
48																											1															6									Burrup Peninsular
49																								1			1												1		1	5		2			1				C Preston, Burrup & Isls
50																													1						23																Burrup & Isls
Predominant area in Presence / absence clasification	Chichester	Chichester	Chichester	Chichester	Chichester	Chichester	Chichester	Chichester	Chichester	Chichester	Chichester, Whim Creek	Chichester	Chichester	Chichester	Chichester	Chichester	Chichester	Chichester	Chichester	Chichester	Chichester	Chichester	Whim Creek	Chichester, Burrup Peninsular	Chichester	Harding Dam	Burrup Peninsular	Burrup & Isls	Burrup & Isls	Harding Dam, HR, KH	Chichester	C Preston	Chichester	Chichester, C Preston	Burrup Peninsular	Chichester	Burrup & Isls	C Preston, Burrup & Isls	Burrup & Isls, C Preston	C Preston	Burrup & Isls	Burrup & Isls	C Preston	C Preston	C Preston	C Preston	C Preston	C Preston	C Preston	C Preston	

Table 3: Summary of comparison between Cover classification and presence / absence classification at the 50 Group Level

			Number of Sites in Corresponding Group																	
# Sites in Group	# Groups	High Correspondence (# Groups)	1	2	3	4	5	6	7	8	9	10	11	14	16	22	23	24	38	41
1	4	4	4																	
2	3	2	2	2																
3	6	5	5	2	3															
4	2	1	5		1															
5	3	2	4	1		1	1													
6	2	1	3	2			1													
7	7	6	6	2	1	1	1	1	3											
8	4	2	5	3	2				1	1										
10	4	4	4	1					1	1	1	1								
11	1	1	1									1								
12	1		5	1			1													
13	1	1	2										1							
15	1		2					1	1											
16	2	2	1	2									1		1					
18	2	1	3	2	2	1	1							1						
24	1	1	1														1			
26	1	1	3														1			
40	1		2	2		1	1						1	1						
44	1	1						1											1	
49	2	2	2	1					1							1		1		1
70	1		5		1	3	1		2	1	1			1						

High correspondence is where number in corresponding presence/absence group >50% of number of sites in cover group (shaded cells).

Table 4: Expansion of top 8 cells from Table T1 showing accord between cover and presence absence classification at the 50 Group level.

		Presence/ absence groups																																							
	50	1	1	1	1	1	1	2	2	2	2	3	3	3	3	3	4	4	4	4	4	4	5	5	5	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	8	8	8
	200	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
Cover																																											
50	200																																										
1	1	1		2		4															1	1																1	1				
1	2							1																													1						
1	3							1		2	2																																
1	4																																										1
1	5																																										
1	6																			2																							
1	7					1						1																															
1	8																																										
1	9																																										
1	10																																										
1	11								1																																		
1	12																																								2	2	2
2	13		1																							2				1													
2	14	1																														1											
2	15																										3																
2	16																									1																	
2	17										2																	1			2												
2	18			1			1						1									1												1	1								
2	19																																				1						
2	20																																			7	1						
2	21													2	1																												
2	22				1																													1									
2	23																																2								1		
3	24															1	2																										

The important issue is the correspondence of the site groups with the site groups (the rows of the table), as species are usually varyingly faithful to specific habitats, generally ranging across several habitats. Thus there are groups of species that correspond to groups of sites. In the context of this general experience, Table 6 shows that some species groups are common to many site groups. It also shows that many species correspond to groups of site groups and some to individual site groups.

From this, it is concluded that there is significant (ie. good) fidelity of species to groups of sites at a number of different levels for the classification presented in this report.

Table 5: Summary of comparison between cover classification and presence / absence classification at the 200 Group Level

			Number of Sites in Corresponding Group										
# Sites in Group	# Groups	High Correspon-dence	1	2	3	4	5	6	7	8	9	11	15
1	68	68	68										
2	52	22	60	22									
3	30	25	28	13	12								
4	12	6	16	6	4	2							
5	11	7	12	7	2	2	3						
6	7	4	14	3		1		3					
7	4	1	7	5	2		1						
8	6	5	7	3	2	1	2		1	1			
9	2	1	1			2					1		
10	1	1		2				1					
11	2	2			1					1		1	
12	2	1	7	1		1						1	
13	1		2				1	1					
14	1			1	1	1	1						
21	1	1						1					1

Table 6: Summary of Two-way table of sites (columns) by Species. The columns are the site groups from the 50 Group Classification. The rows are the Species groups from the 100 group classification. the values in the cells are the number of occurrences in the combination of site group by species group. Note that if the number of species in a species group or the number of sites in a site group is high, the number of values could easily be high.
The table is meant to give an impression of the degree of clustering of the values. A high degree of clustering indicates relatively high faithful ness of groups of species for groups of sites.

Species Group	Cover 50 Group Level Group Number																																																	
gp100	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
1																													1	2		1				2	18	10					1			3	3	1		
2	19	6				1		4	6		1	1	2		4			1			1					2			7	60	8	51	11	3		26	253	92	4	3	5			2	15	2	2	1	9	5
3		1		1																						1				2	1	2				2	2	8			1			3		1				1
4	2	3		1				2	1	3		1	1		3															2							8	17												
5	13	34	2	1		1	2	4	9	18		5	13		16	1	1							1					2	8	1	4	3			3	38	29						6	1	14	4	1	1	1
6				1		1	1		1			1																		1		18	1			4	6	9			6		1	14	1	4	4			
7		1																														1		1			5	8												
8																															1							1												
9									2								1																				3	2												
10																																						1									1			
11																										1	1			2		6				1	1		1		2		1				1			
12													3									1				1				1	1										1									
13					1		2			2		1			1			1						2	9	20	1	13	7	6	2	2	1	2	3	7	13	4					4	1		7	21	5	8	3
14																										1			1				2			3											2			
15	4	6	2	1			4	5	1	4			10	1	33	1					8	3		1			1		1	75	9	23	60	11	6	23	40	29	2	3	1	2	1	10	2	7	6		5	8
16	1	2					1			1			6	1	9	1					1	4							1	3		17	6			1	2	1			1	3	1	1		1	2			5
17																										2			2	12	3	2	3			1				1			1	1	2		2		2	2
18																														3						2	2													
19													1		1															6						2	2	2									1			1
20		1																												1				1		1											1			
21		1											2	1	8							2				1				16		2	44				4	1						2	1	1	1			4
22	1	1	3			2				3									1											1			3		1										1				1	1
23															1						1	1	1	5		1		1	1	2	4		6	1		1													1	
24															13															3			7	6		3														
25															1						1	3								2			1	1							1									
26																										1				2			1																	
27																														2		5																		
28																														6						1														
29																									1	2				1				2		5	8													
30																														3						5														
31						1													1															3		4	4	1												
32																														1				4	3	7														
33	1		1															1	1	2	4	4		2						9			3	27	10	25	7										1			
34	7	14	3	1	2	3	3					1	2		3		1				2	2				2			1	12		3	1	24	6	62	101	13			1	1			3	4	3	3	1	
35																																				8														
36																																	2			2														
37	3	9		1	1		1		2		1	1	2		7					4	34	56								2				14		3		1									1			
38																					1	5															1													
39		2								1											1									1				5																
40																						1											1	8	2															
41																														3				7		2														
42																														4				1																
43																																						2												
44																																						1												
45																																					2													
46																																															3			
47																																																3	1	
48																																				1								1		1	6	1		1
49																																												1						
50						1				1			3													1			8				1																	
51	1																												6							1	1									5	4			

Species Group	Cover 50 Group Level Group Number																																																
gp100	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
52																													1					1			1	1									2			
53	37	17	3	4		2	8	11	7	15	1	7	13	10	53	2	1	6	1		2	3		1	6	25	2	17	7	37	5	80	14	1		15	50	13	37	12	59	102	156	837	183	277	134	28	66	243
54	2			1											1											1	1	1	4							2	1					1	1	9		4	17	2	3	5
55	5	3				2	1		4	7	1	2	2		1			2							2	6		2	3	4		1		1			24	4	2	1	2	3	11	156	8	269	136	40	33	71
56																																				1	1	1						28		6	2		3	
57																																									1			7						
58				1																																														2
59	27	32	2		5	9	11	6	11	18		6	12	5	15		1			1	3	4		1		10		3	16	71	8	89	16	11	8	60	406	103		2	12	8	19	148	10	286	124	47	32	46
60	301	205	15	26	13	43	41	45	78	105	16	44	115	26	204		8	9	2	1	16	37	2	1	12	47	6	17	28	130	11	94	55	38	4	46	337	101	15	15	27	27	58	369	97	411	250	73	78	184
61																																	4																	
62															2																		11																	
63															1																		3																	
64															4																																			
65		1										1			1																																			
66															1																					1														
67						1									2															2			1																	
68	2	5	1	1		1	1	1		8		1	10		51		2	9					2																	1	1						1			4
69	19	23	3		7	3	1	13	2	12		10	37	27	222	3	11	18			1	1	10		3	2				17	5	3	74			2	5		4	4	7	1	4	19	11	8	21		6	168
70					1								2	4	57		1	2					1							1			5			1														
71	1	2			5			1		1		1	3	5	76		1	2					1	1	1				2	4	1	2	19	2		6	2	2		1	1			2		2	12			18
72															2																																			
73										1					5																																			
74													1		19																								1	1										
75																										2											3												1	
76																													2	2					1														1	
77															1																						3	2										4		
78																																												1		11		1	2	
79																																															1		1	4
80							1																						2																	1				
81	2	2					3			1		1																				4						1	3		27			2	16	1				
82										2																				1																				
83	1						4	1																																										
84																								1	1	6			1																					
85																		1							22	13	1	19	2		1						1				1					1	6	1		
86	7	1		1					1	4	1		2	1	2							2	4	30			2	1		2	5		4	4			7	1	11		1		1		4				3	
87	5	5	2			4		1					11	1	1																					1								1				1		
88		1																																																
89	9	3		1	1		3			1					18	2	2	9														1					1		2						1		1			3
90					1										2																																			
91										1																											3													
92		2							1	1			1																								1													
93													1																																					
94										2			1																															1		1				
95	84	218	11	2	15	21	9	26	28	48		46	88	13	114	1	4	3	1	1	16	11								1	1	3	3			1	13	10	4	7	1			3	1	11	5	3	2	3
96	221	100	4	11	10	17	25	47	98	69	18	32	34	12	52		3	2		1	3	8				1			2	11	1	10		1		15	63	23	4	11	6				8				1	
97	146	66	1	6	4	14	11	13	59	36	2	8	9	1	7		1									3			1	2		5		3		10	108	37		1	7		1	5	12	15	2	9	3	
98				8																																														
99				8																																														
100																													11																					

Further analyses were performed in an attempt to interpret the underlying patterns in the data and infer the major controls on the distribution of floristic groups. Geographic distribution was one obvious factor worth investigating and summaries of the occurrence of groups were made for the different localities sampled. Land System mapping (Department of Agriculture in prep.) could be an important key to understanding controlling factors for the distribution of floristic groups in the vegetation, as it is an integration of geology, geomorphology and soils. Unfortunately, the land system mapping for the region was not available at the time of writing in a form suitable for interrogation. The geology mapping was also not readily available.

Habitat type was also likely to be a major factor influencing the distribution of species and thus floristic groups in the vegetation. For the analyses carried out, habitat type was summarised in terms of a landscape classification (see Table 7 below). This habitat/landscape classification was compiled by assessing the habitat sections of the site descriptions recorded in the field. The habitat/landscapes units are hierarchical, thus catering for the data for some sites being inadequate for complete classification. The classification also includes a rockiness and stoniness qualification as it was thought these might be significant influences on the vegetation.

Soil types are another environmental variable likely to be very important in influencing plant distribution. However, description of soil to a standard suitable for use in such an analysis would have taken a significant amount of time in the field (as well as requiring appropriate specialist experience). Thus the descriptions available were not adequate to define the soil at each site to a standard suitable for such an analysis. The rockiness /stoniness in the landscape classification can be used to infer some of the soil properties.

Detailed analysis was, therefore, restricted to comparing the different floristic groupings to:

- the geographic patterns as represented in the various study areas; and

- the habitat/landscape units defined for this study.

Table 7: Habitat units used to classify sites from site descriptions

Habitat	Description
rp	rockpile
rpb	rockpile - brecciated banded ironstone
rpg	rockpile - granite
rpr	rockpile - rhyodacite
rps	rockpile - sandstone
rpv	rockpile - volcanic
p	plain
ps	plain - stony
s	slope
sc	slope - crest & upper
scr	slope - crest & upper, rocky
scs	slope - crest & upper, stony
sr	slope - rocky
ss	slope - stony
st	slope - terrace
str	slope - terrace, rocky
sts	slope - terrace, stony
smr	slope - mid, rocky
sm	slope - mid
sms	slope - mid, stony
sl	slope - lower
slr	slope - lower, rocky
sls	slope - lower, stony
d	drainage line
ds	drainage line - stony
dap	drainage line - alluvial plain
daps	drainage line - alluvial plain, stony
dn	drainage line - narrow
dnr	drainage line - narrow, rocky
dns	drainage line - narrow, stony
du	dune
dub	dune, beach
dus	dune, swale
li	littoral and salt flats
lim	littoral - mangrove

5.0 RESULTS

5.1 Vegetation unit richness in the dataset

The classification of sites using the cover data (the dendrogram generated from the analysis, see Appendix 2) shows that there are many very different vegetation types in the overall data set. This richness of vegetation types in the region is shown by Figure 2, a truncated version of the dendrogram showing the way the groups defined at the 50-Group level fuse together.

From the way the groupings occur in the dendrogram, it should be inferred that many of the groups defined at the 50 group level are very different. Appendix 1 is a summary of the inferred characteristics of the groups defined at the 50-Group level and the 200-Floristic Groups defined within them. The details will not be discussed, however it is likely that the units defined at the 50 group level are akin to vegetation formation in level (but not in their nature, they are based on different concepts (see Trudgen 1999, volume 1 for discussion of the different concepts involved)). That is, they are quite high order units.

It is likely that the groups defined at the 200 group level are mostly of similar rank to vegetation association, although again of a different type. This implies that there is significant variation, ie. a large number of plant communities, below the 200 group level defined in this study, that would only be able to be classified with a much larger dataset.

The existence of the diversity of vegetation types in the region covered by the overall dataset presumably reflects a number of factors including:

- the age of the landscape;

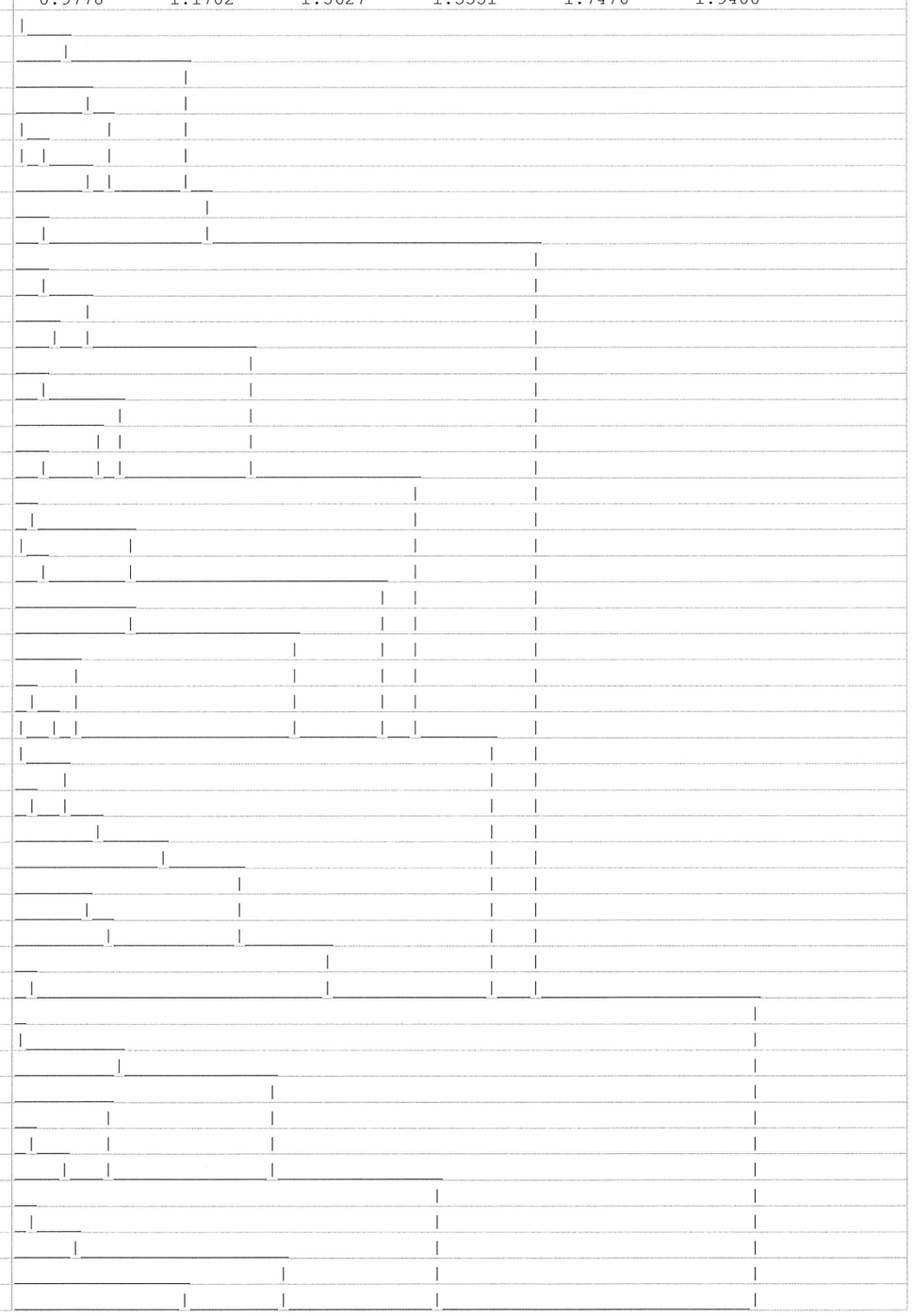
- the geological diversity present in the landscape;

- the geomorphological/landscape/habitat diversity of the landscape;

- the range of climate experienced over the region (with the maritime effect probably a significant factor along the coast); and

- the diversity of the flora present and the significant geographical restriction of some taxa.

Figure 2: Truncated dendrogram showing fusion of 50 Group level.

gp50	sites	Areas (see Below) // Landforms (see Table 6 for decode)	Dendrogram (lower portion Truncated)
			0.9778 1.1702 1.3627 1.5551 1.7476 1.9400
1	70	WANGEL-70 // scs-17 sls-17 smr-8 scr-8 dns-6 sms-5 ps-5 sl-1 sm-1	
2	40	WANGEL-40 // sls-14 dn-6 sl-6 sms-3 smr-3 scr-2 scs-2 slr-1 s-1	
3	3	WANGEL-3 // scs-3	
4	4	WANGEL-4 // scs-1 sc-1 ds-1 dnr-1	
5	5	WANGEL-5 // scs-3 dn-2	
6	7	WANGEL-6 WHICRE-1 // sls-3 scs-2 sl-1 sms-1	
7	7	WANGEL-6 WHICRE-1 // scr-2 sls-1 dns-1 ps-1 rp-1 scs-1	
8	8	WANGEL-8 // dns-5 dn-2 ds-1	
9	15	WANGEL-15 // dns-5 scs-4 ds-2 dnr-1 slr-1 sms-1 ss-1	
10	18	WANGEL-17 WHICRE-1 // dns-4 daps-3 sls-3 scr-2 sc-2 scs-1 sl-1 smr-1 dn-1	
11	5	WANGEL-5 // scs-3 scr-1 sms-1	
12	8	WANGEL-8 // dns-2 ds-2 dnr-1 dn-1 d-1 scs-1	
13	16	WANGEL-16 // dap-6 ds-4 daps-2 dn-2 d-1 dns-1	
14	6	WANGEL-6 // ds-3 smr-1 d-1 dnr-1	
15	26	WANGEL-26 // ds-22 d-2 dnr-1 dn-1	
16	1	WANGEL-1 // d-1	
17	2	WANGEL-2 // dap-1 scs-1	
18	3	WANGEL-2 BURPEN-1 // d-1 dn-1 ds-1	
19	1	WANGEL-1 // p-1	
20	1	WANGEL-1 // scs-1	
21	7	WANGEL-7 // sl-4 sc-2 scs-1	
22	7	WANGEL-7 // scs-7	
23	2	CAPPRE-1 WANGEL-1 Coastal: 1 // d-1 lim-1	
24	3	CAPPRE-3 Coastal: 3 // li-3	
25	4	ANGELISL-1 GIDISL-1 BURPEN-1 CAPPRE-1 Coastal: 4 // du-4	
26	8	CAPPRE-3 DOLISL-3 BURPEN-1 GIDISL-1 Coastal: 8 // du-4 p-3 dus-1	
27	1	DOLISL-1 // sl-1	
28	5	DOLISL-5 Coastal: 5 // du-4 dub-1	
29	3	CAPPRE-2 ANGELISL-1 Coastal: 2 // du-2 sl-1	
30	11	CAPPRE-11 // dn-6 dns-4 d-1	
31	2	CAPPRE-2 // d-1 dn-1	
32	13	CAPPRE-11 BURPEN-1 KARHIL-1 Coastal: 1 // rp-10 rpb-2 smr-1	
33	10	CAPPRE-10 // d-8 dap-1 dn-1	
34	7	CAPPRE-7 // dap-4 p-3	
35	3	CAPPRE-3 // dn-1 ps-1 dap-1	
36	10	CAPPRE-10 // ps-8 p-1 sl-1	
37	49	CAPPRE-47 HARDAM-2 // sls-11 ss-9 scs-7 slr-6 dns-4 ps-4 p-3 sms-1 rpg-1	
38	10	CAPPRE-10 // dn-3 dns-3 ds-3 scr-1	
39	6	WANGEL-6 // rp-3 smr-2 scr-1	
40	3	WANGEL-3 // dnr-3	
41	7	WHICRE-7 // rp-5 rpv-2	
42	8	ANGELISL-3 GIDISL-2 DOLISL-2 BURPEN-1; Coastal: 2 // rp-3 rpv-3 rpg-1 rpr-1	
43	10	BURPEN-8 DOLISL-2; Coastal: 2 // rp-6 rpr-2 scr-2	
44	49	BURPEN-40 DOLISL-9; Coastal: 3 // rp-20 rpv-12 rpr-6 dnr-4 rpg-2 smr-2 sr-2 dn-1	
45	16	HARDAM-11 HAMIR-3 KARHIL-2 // rp-14 rps-1 slr-1	
46	44	BURPEN-36 GIDISL-3 ANGELISL-3 DOLISL-2; Coastal: 2 // scr-9 dn-4 ss-4 rp-3 sms-3 scs-3 sls-2 sr-2 smr-2	
47	18	BURPEN-17 DOLISL-1; Coastal: 5 // dns-6 ps-4 dn-3 du-2 sls-2 d-1	
48	7	BURPEN-5 KARHIL-2 // sls-5 sl-2	
49	12	BURPEN-6 CAPPRE-3 DOLISL-2 ANGELISL-1; Coastal: 3 // ps-2 sl-1 sts-1 sr-1 dn-1 slr-1 p-1 ds-1 dns-1	
50	24	BURPEN-20 DOLISL-4; Coastal: 1 // dnr-8 dn-7 dns-7 ds-2	

CPRES - Cape Preston, ANGELISL - Angel Island, DOLISL - Dolphin Island, GIDISL - Gidley Island, BURPEN - Burrup Peninsular, HAMIR - Hamersley Rail, HARDAM - Harding Dam, KARHIL - Karratha Hills, WHICRE - Whim Creek, WANGEL – Chichester

5.2 Regional patterns in the dataset

Examination of the distribution of the group defined in the classification shows that their distribution is strongly related to the geographical distribution of the sites in them (see Table 8) and to a much lesser degree to the habitats the sites are recorded from (see Table 9).

These factors are combined and simplified in Table 10, which shows that many of the groups are principally geographical based with habitat only a modifying influence. Looking at the rows in Table 10 (the 50-Groups), it can be seen that most groups are restricted to one of the study areas and virtually all are when the Burrup Peninsula is taken in a broad sense (ie., the Peninsula and the islands considered together - the core study area). Where there is overlap between study areas, the habitats of the groups concerned usually correspond. For example, group 25 is a coastal group based on sites where coastal influences (soil, microclimate) are more important than the geographical location of the sites.

It is readily apparent that the data suggest strong fidelity of species for study areas. That is the distribution of species is not random between the study areas, but has a strong pattern of occurrence with a proportion of species being restricted in their distribution. Table 11 shows that this is the case. The Burrup Peninsula core survey area (including the islands), Cape Preston and West Angelas data sets having up to a quarter of the species present in them not present in any of the other areas. Many of these are single occurrences, but a significant number are more common.

Table 8: Summary of the Geographical Locations at which the Groups from the 50 Group level classification occurred. Values are number of sites.

gp50	Cape Preston	Angel Island	Dolphin Island	Gidley Island	Burrup Peninsula	Hamersley Rail	Harding Dam	Karratha Hills	Whim Creek	Chichester
1										70
2										40
3										3
4										4
5										5
6									1	6
7									1	6
8										8
9										15
10									1	17
11										5
12										8
13										16
14										6
15										26
16										1
17										2
18					1					2
19										1
20										1
21										7
22										7
23	1									1
24	3									
25	1	1		1	1					
26	3		3	1	1					
27			1							
28			5							
29	2	1								
30	11									
31	2									
32	11				1			1		
33	10									
34	7									
35	3									
36	10									
37	47						2			
38	10									
39										6
40										3
41									7	
42		3	2	2	1					
43			2		8					
44			9		40					
45						3	11	2		
46		3	2	3	36					
47			1		17					
48					5			2		
49	3	1	2		6					
50			4		20					

Table 9: Summary of the Habitats in which the Groups from the 50 Group level classification occurred. Values are number of sites. (Habitat Codes are columns. See Table 7 for the meaning of the Habitat Codes)

gp 50	li	lim	du	dub	dus	d	dap	daps	ds	dn	dnr	dns	rp	rpb	rpg	rpr	rps	rpv	sm	smr	sms	sc	scr	scs	s	sl	slr	sls	sr	ss	st	str	sts	p	ps
1											1	6							1	8	5		8	17		1		17		1						5
2										6	1	1								3	3		2	2	1	6	1	14							
3																								3											
4									1		1											1		1											
5										2														3											
6																					1			2		1		3							
7												1								1			2	1				1							1
8									1	2		5																							
9									2		1	5									1			4			1			1					
10								3		1		4								1		2	2	1		1		3							
11																					1		1	3											
12						1			2	1	1	2												1											
13						1	6	2	4	2		1																							
14						1			3		1									1															
15						2			22	1	1																								
16						1																													
17							1																	1											
18						1			1	1																									
19																																		1	
20																								1											
21																						2		1		4									
22																								7											
23		1				1																													
24	3																																		
25			4																																
26			4		1																													3	
27																										1									
28			4	1																															
29			2																							1									
30						1				6		4																							
31						1				1																									
32													10	2						1															
33						8	1			1																									
34							4																											3	
35							1			1																									1
36																										1								1	8
37												4	1		1						1		1	7	1		6	11		9				3	4
38									3	3		3											1												
39													3							2			1												
40											3																								
41													5					2																	
42													3		1	1		3																	
43													6			2							2												
44										1	4		18		2	6		12		3			1						2						
45													14				1										1								
46										4	1	1	1							4	3	1	10	3		1	2	2	3	4	1	2			1
47			2			1				3		6																2							4
48																										2		5							
49									1	1	1	1														1	1	1	1				1	1	2
50									2	7	8	7																							

Table 10: Summary of the Locations by Habitats in which the Groups from the 50 Group level classification occurred. Values are number of sites. CPRES - Cape Preston, ANGELISL - Angel Island, DOLISL Dolphin Island, GIDISL - Gidley Island, BURPEN - Burrup Peninsular, HAMIR - Hamersley Rail, HARDAM - Harding Dam, KARHIL - Karratha Hills, WHICRE - Whim Creek, WANGEL – Chichester (Habitat Codes are simplified to: l – littoral, du – coastal dune, d – drainage line, dn – drainage line, narrow, r – rockpile, sm – slope, mid, sc – upper slope and crest , s – slope, other, p – plain)

gp50	CAPPRE_l	CAPPRE_du	CAPPRE_d	CAPPRE_dn	CAPPRE_r	CAPPRE_sm	CAPPRE_sc	CAPPRE_s	CAPPRE_p	ANGELISL_du	ANGELISL_dn	ANGELISL_r	ANGELISL_s	ANGELISL_sc	ANGELISL_s	DOLISL_du	DOLISL_dn	DOLISL_r	DOLISL_sc	DOLISL_s	DOLISL_p	GIDISL_du	GIDISL_r	GIDISL_sm	GIDISL_s	GIDISL_p	BURPEN_du	BURPEN_d	BURPEN_dn	BURPEN_r	BURPEN_sm	BURPEN_sc	BURPEN_s	BURPEN_p	KARHIL_r	KARHIL_sm	KARHIL_s	HAMIR_r	HARDAM_r	HARDAM_s	WHICRE_r	WHICRE_sm	WHICRE_sc	WHICRE_s	WANGEL_d	WANGEL_dn	WANGEL_r	WANGEL_sm	WANGEL_sc	WANGEL_s	WANGEL_p
1																																												7		14	25	19	5
2																																												8		6	4	22	
3																																															3		
4																																											1	1			2		
5																																												2			3		
6																																										1				1	1	4	
7																																									1			1			3	1	1
8																																											1	7					
9																																											2	6		1	4	2	
10																																										1	3	5		1	5	3	
11																																													1	4		
12																																											3	4			1		
13																																											13	3					
14																																											4	1		1			
15																																											24	2					
16																																											1						
17																																											1				1		
18																											1																1	1					
19																																																1
20																																														1		
21																																														3	4	
22																																														7		
23	1																																										1						
24	3																																																
25		1								1													1				1																						
26		3														2					1					1							1																
27																						1																											
28																5																																	
29		2												1																																			
30			1	10																																												
31			1	1																																												
32					11																																												
33			9	1																																												
34			4						3																																							
35			1	1					1																																							
36								1	9																																							
37				4	2	1	8	25	7																																	2							
38			3	6			1																																									
39																																														3	2	1	
40																																													3				
41																																												7					
42												3																2																					
43																													2																				
44																												9																					
45																																																
46													1	2								2			2	1																							
47																					1						2	1																				
48																																																
49									3		1										2																											
50																	4																															

Table 11: Number of species in each Study Area with an indication of the degree of restriction of species to the study areas.

Area	Total Sites in area	Total Species in sites in area	# Restricted to Area	% species 100% Restricted to area*	# Restricted to 4 or more sites
Burrup and Islands	184	299	52	17	12
(Burrup Peninsular)	9	278	36	13	9
(Angel Island)	137	95	1	1	
(Dolphin Island)	31	142	3	2	
(Gidley Island)	7	76	2	3	
Cape Preston	124	419	108	26	22
Hamersley Rail	3	46	0	0	
Harding Dam	13	78	2	3	
Karratha Hills	5	82	2	2	
Chichester	266	423	116	27	21
Whim Creek	10	84	5	6	1

* The percentage of species recorded in the overall data set for this report that are restricted in that data set to the different study area (ie. not endemic to the study area concerned).

5.3 Regional and local scale variation in the vegetation of the Burrup Peninsula, Dolphin, Gidley and Angel Islands

5.3.1 Diversity of the Burrup Peninsula and Islands vegetation

The vegetation sites recorded on the Burrup Peninsula, Dolphin Gidley and Angel Islands were referred by the analysis to 15 of the 50-Group level groups and 47 of the 200-Floristic Groups. This diversity of units roughly corresponds to the number of units defined for the Cape Preston area (Biota *et al* 2000), a fairly similar sized survey area with a similar range of habitat. The accord between the two classifications suggesting that the definition by the present method is reasonably equitable with the units defined intuitively in that study.

Most of the habitats defined for the study in Table 7 (see above) were represented in the core survey area of the Burrup Peninsula, Dolphin, Angel and Gidley Islands. The most obvious exception being the absence of alluvial plains. Also, the data set from the core survey area does not contain the coastal communities such as salt flats and mangroves (survey of these were outside the scope of the present study), but these are present in the area.

In general terms, the Burrup contained coastal dune and plain related units, rockpile units, slope and crest units and drainage line units (Table 9). This is elaborated in Table 12 which shows the 50 and 200-Floristic Groups with the habitat units. This shows clear relationships between groups of habitat units and the floristic classification. However, there is a significant range of habitat units within most of the 200-Floristic Groups. (It must be emphasised here that the habitat units were derived from site observations which were not designed to convey detailed landscape and soil classifications. Therefore, part of the overlap will be related to the difficulties in the habitat classification and does not necessarily reflect a discordance between the floristics and habitat in the survey area.)

Table 12: 200 Floristic Group Level Units in the Burrup area by Habitat
(Values are number of sites)

		Habitat Code (see Table 6)																										
gp50	gp200	du	p	dub	rp	rpr	rpg	rpv	dnr	smr	sr	scs	scr	sms	sc	ss	st	str	sl	slr	sls	dns	d	dn	ps	ds	sts
18	90																									1	
25	103	2																									
25	104	1																									
26	105	1	2																								
26	106		1																								
26	107	1																									
27	109																		1								
28	110	4																									
28	111			1																							
29	112																		1								
32	119				1																						
42	157				1	1																					
42	158				2			3																			
42	159						1																				
43	160				1	1																					
43	161				2	1																					
43	162				3																						
43	163												2														
44	164				7	3	1	8	1															1			
44	165				7	1		2			1																
44	166				1	2																					
44	167				1			2	3	2																	
44	168				1		1			1	1																
44	169				1								1														
46	174									2	1	2		1													
46	175												1		1												
46	176				1				1			1	6			1	1		1					1			
46	177												2	1		2		1		1					1		
46	178									1											2	1					
46	179									1	1		1	1				1		1				1			
46	180										1					1								2			
47	181																				2	6	1	3			
47	182																								3		
47	183																								1		
47	184	2																									
48	185																		2		2						
48	186																				1						
49	189								1																		
49	190																									1	
49	192																				1			1			
49	194										1								1	1		1					
49	195																										1
50	196																					3		5		1	
50	197								3																		
50	198								2													2		2			
50	199																									1	
50	200								3													2					

The columns have been ordered to demonstrate the correspondence between habitat and the 200-Floristic Groups.

5.3.2 Rockpile vegetation of the Burrup Peninsula, Dolphin, Gidley and Angel Islands

5.3.2.1 Regional context

Rockpiles are a particular type of rock outcrop habitat unit that generally occurs on crests, but can occur lower in the landscape. They vary very considerably in their overall appearance, boulder size, slope, position and in the geology of the rock they are formed from. They form a broad habitat/landscape unit that have in common that they have much exposed rock and tend to be on crests. They are generally distinct from other outcrop habitats such as sheet outcrop and cliffs.

A total of 94 rockpile sites were included in the dataset on which the classification presented in this report is based. These were 40 from the Burrup Peninsula, 3 from Angel Island, 11 from Dolphin Island, 2 from Gidley Island, 13 from Cape Preston, 3 from adjacent to the Hamersley Iron rail line south of Karratha, 10 from the Harding Dam area (also south of Karratha), 2 from the Karratha Hills, 3 from the Chichester Ranges and 7 from the Whim Creek area.

The analysis shows that Rockpiles are apparently distinct floristically from other plant communities. Rockpile sites are represented in 9 of the 50 group level groups and 27 of the 200 level floristic groups. These are mostly pure rockpile groups with only two rockpile sites being referred in the analysis to 200 group level floristic groups dominated by other habitats (Table 13). The floristic composition of vegetation on rockpiles in the different geographical areas in the dataset also appear to be distinct from each other (see Table 13). This holds at both the 50 group level of the analysis and at the 200 group level of the analysis.

The only rockpile site from the Burrup Peninsula related to the same 50 level group as the Cape Preston rockpile sites ws distinct at the 200 group level. The rockpile sites from the Karratha Hills, the Harding Dam area and adjacent to the Hamersley Rail Line were related to each other, but distinct from those from the Burrup Peninsula and adjoining islands. Also distinct from each other and other areas were the rockpile sites from the Whim Creek area and the Chichester Ranges.

5.3.2.2 Variation in the rockpile vegetation of the core study area

While some of the Burrup Peninsula sites are from the same 200 level group as those on Dolphin Island, several of the 200 group level floristic groups were only on the islands off the Burrup Peninsula. If the Burrup Peninsula and the adjacent Islands are treated as one locality, most group 50 level groups and virtually all group 200 level groups are faithful to one locality.

A closer examination of the rockpile sites from the Burrup Peninsula and the adjoining islands shows clearly that there are distribution patterns at different scales within this group of sites. Figure 3 shows the distribution of the three 50 group level groups in this area which are predominantly rockpile vegetation. Sites from each of these groups are plotted in different colours on Figure 3, with different symbols for the 200 group level units within each. The results shows strong geographic patterns. For example, the islands have distinct groups at the 200 group level. Dolphin Island shared a 200-level group with the Burrup Peninsula, but these sites are separable from those on the Burrup Peninsula below the 200 group level. Within the 50 group level group 44 (a group that seems to be widespread and fairly common on the Peninsula - see Figure 3, where this group is shown in red) there are six groups at the 200 group level: groups 164 to 169. The distributions of these six groups shows a strong pattern from south to north on the Peninsula.

Table 13: Rockpile dominated groups amongst 200 Floristic Group Level Units by Location (This is a subset of Table 10) (Values in the grid are number of sites. "# other sites" is the number of sites from "other" habitat types in Floristic Group.)

gp50	gp200	#rockpile sites	# of other sites	Cape Preston	Burrup Peninsula	Dolphin Island	Angel Island	Gidley Island	Hamersley Rail	Harding Dam	Karratha Hills	Whim Creek	Chichester
32	119	1	1		1								
32	120	1	1	1									
32	121	5	0	5									
32	122	2	0	2									
32	123	3	0	3									
37	144	1	1	1									
37	147	1	10	1									
39	150	3	0										3
41	155	5	0									5	
41	156	2	0									2	
42	157	2	0				1	1					
42	158	5	0			2	2	1					
42	159	1	0		1								
43	160	2	0		2								
43	161	3	0		3								
43	162	3	0		3								
44	164	19	2		19								
44	165	10	1		4	6							
44	166	3	0			3							
44	167	3	5		3								
44	168	2	2		2								
44	169	1	1		1								
45	170	9	1							7	2		
45	171	3	0						3				
45	172	2	0							2			
45	173	1	0							1			
46	176	1	12		1								

Figure 3: The distribution of the three 50 group level groups in the core study area (Burrup Peninsula, Dolphin Gidley and Angel Islands) which include predominantly rockpile vegetation and the 200 group level groups within them.

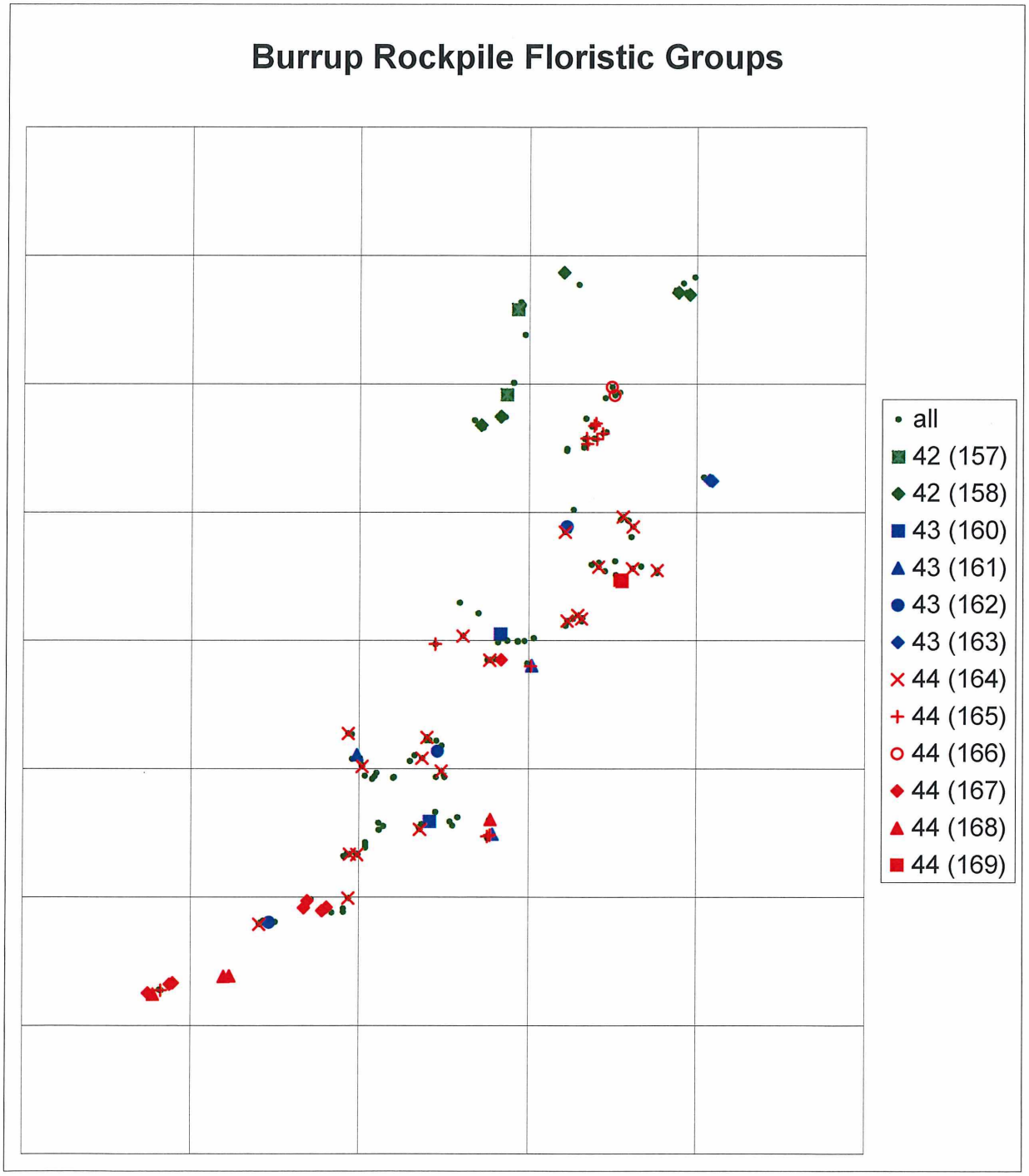


Figure 4 show the distribution on the Burrup Peninsula of the three subgroups of the 200 group level group 164. The distribution of these subgroups also has a strong geographic pattern.

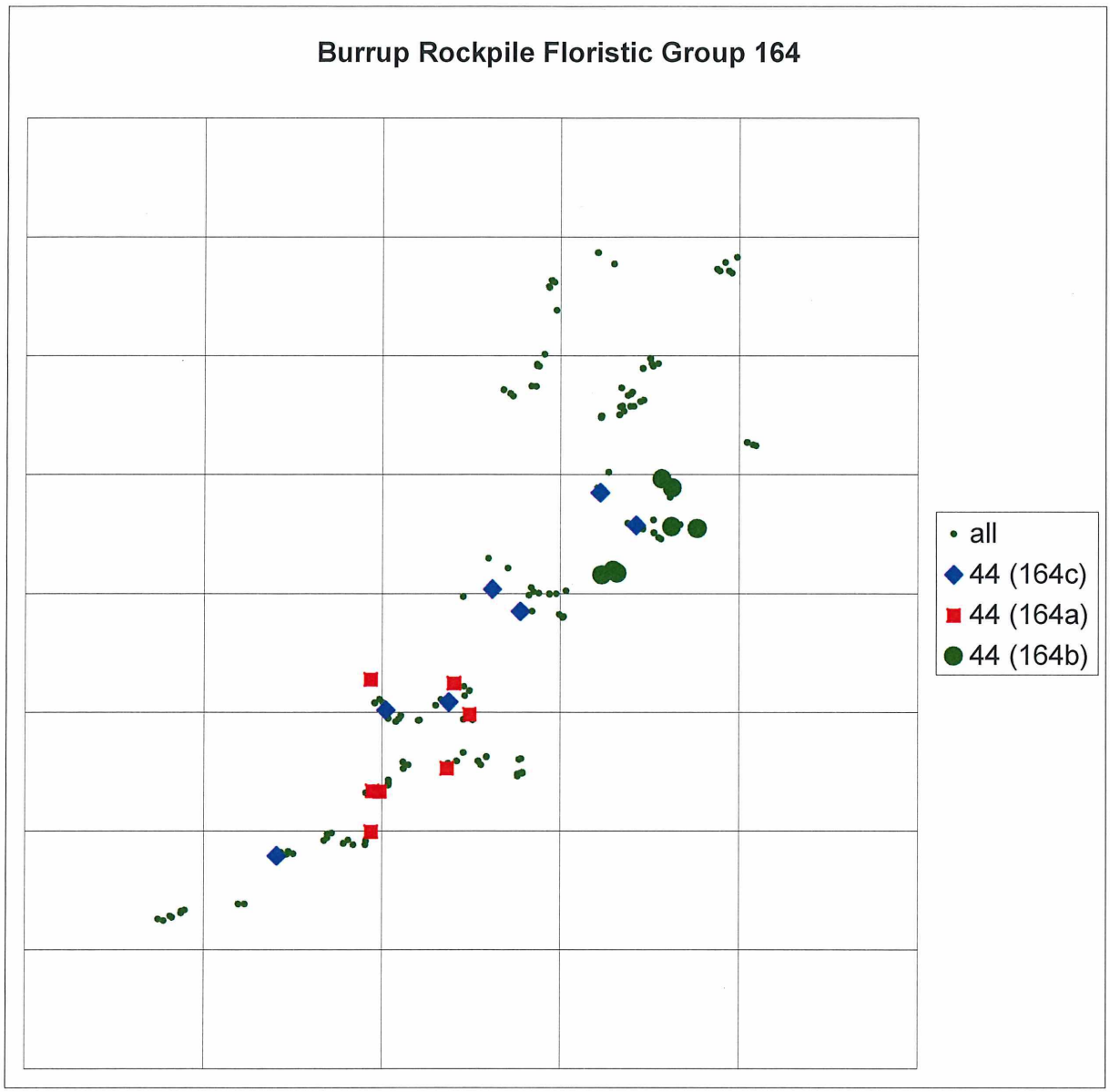
While subgroup 164c has a wide distribution on the Peninsula, subgroup 164b is restricted to the northern end of the Peninsula and subgroup 164a to the southern end of the Peninsula.

The level of separation of the various layers of variation in the vegetation of the rockpiles on the Burrup Peninsula and the adjacent islands is quite significant, with the 50 group level groups being higher order than vegetation association, the 200 group level groups being higher order, or equal to association and the subgroups of them being of higher order than plant community.

The basis of the separation of the different 50group level, 200 group level and subgroup of 200 group level groups in the rockpile vegetation of the core study area can be observed in a general fashion from examination of Table 14

For example, *Abutilon indicum* var. *australiense* and *Sorghum plumosum* only occur in group 158, *Phyllanthus ciccoides* occurs in all the sites referred to group 158, but only occurs in two other sites, *Canavalia rosea* occurs in four of the five sites in group 158, but in only one other site. Or considering subgroup 164b, the only rockpile records for the Burrup of *Eucalyptus xerothermica, Abutilon* aff. *dioicum* (HD72-14) and *Gossypium australe* (Burrup form) are from this subgroup. While the basis of the groups and subgroups is undoubtedly much more robust than these few examples, they illustrate the fact that real (and indeed complex) differences in species distributions underlie the various levels of groups defined for the rockpile vegetation of the Burrup Peninsula. {The species mentioned in this paragraph are highlighted in yellow on Table 14.}

Figure 4: The distribution of sites from three subgroups of 200 group level group 164 on the Burrup Peninsula.



5.3.2.3 Northern element in the rockpile vegetation of the core study area

A close look at Table 14 offers some other intriguing insights into the rockpile vegetation, such as confirmation of the importance in this vegetation of species with northern affiliations in their taxonomic relationships. A group of species (highlighted in blue in Table 14, except *Abutilon indicum* var. *australiense*) are from taxonomic groups that are predominantly northern (Kimberly in Western Australia) rather than Eremaean (arid inland) or southern; or are northern species near the southern end of their range in Western Australia in the study area .

This group includes at least five fig taxa: *Ficus opposita* var. *indecora, Ficus opposita* var. *aculeata, Ficus virens* var. *sublanceolata* and what appear to be several taxa (lumped for the analysis) in the group generally referred to *Ficus platypoda.* Other species in this northern group include Terminalia supranitifolia, Terminalia canescens, Flueggia virosa ssp. melanthesioides, Brachychiton acuminatus, Clerodendrum tomentosum, Tinospora smilacina, Jasminum didymum var. lineare, Eheretia saligna var. saligna, Alectryon oleifolius, Erythrina vespertilio, Sarcostemma viminale var. australiense, Trichosanthes cucumerima and Capparis spinosa var. nummularia.

The importance of the rockpiles on the Burrup Peninsula for northern species and as vegetation largely dominated by such species was first recognised by Blackwell *et al* (1979). The additions to the lists of such species present in the rockpile vegetation of the Burrup Peninsula by the current study emphasises and increases that value.

A feature of the "northern species group" is that many of them have fleshy fruit (although some are quite small). They are likely to be distributed by birds eating the fruit and this probably explains why these species are almost ubiquitous in rockpiles on the Burrup Peninsula. Two other fleshy fruited species, Rhagodia eremaea and Scaevola spinescens (narrow form) are also very common in the rockpile vegetation of the Burrup Peninsula but are not "northern group" species

Table14: A part of the 2-way table of the overall dataset compiled for the analysis carried out. This part of the 2-way table contains the data for sites that were referred to groups in the analysis that were predominantly rockpile sites.

	Area	ANGELIS	GIDISL	ANGELIS	ANGELIS	DOLISL	GIDISL	DOLISL	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	DOLISL	DOLISL	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	DOLISL	DOLISL	DOLISL	DOLISL	DOLISL	DOLISL	DOLISL	DOLISL	DOLISL	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN
	Site	A127	G131	A133	A140	D110	G142	D117	B155	B002	B238	B038	B171	B164	B028	B050	B074	D098	D099	B003	B018	B010	B061	B014	B064	B023	B031	B066	B082	B192	B195	B232	B052	B026	B044	B163	B059	B072	B078	B154	B035	B173	B174	B080	B160	D100	D108	D089	D087	D114	D106	D094	D103	D125	B039	B183	B055	B056	B084	B182	B085	B093	B079	B169	B090	B091	B045	B046
	Habitat code	rpr	rp	rp	rpv	rpv	rpv	rp	rpg	rp	rpr	rp	rp	rpr	rp	rp	rp	scr	scr	dnr	rpv	rpv	rpv	rpv	rpv	rp	rpg	rpv	rpv	rp	rp	rp	rpv	rpr	rpr	dn	rpr	rp	rp	rp	rp	rp	sr	rp	rp	rp	rp	rpv	rpv	rp	rpr	rpr	rpr	rp	dnr	rpv	smr	dnr	rpv	rp	smr	dnr	smr	rp	rpg	sr	scr	rp
	Coastal					y	y											y	y																															y	y	y																
	Group 50 #	42	42	42	42	42	42	42	42	43	43	43	43	43	43	43	43	43	43	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Gp100	Group 200 # and Subdivision --> Plant name	157	157	158	158	158	158	158	159	160	160	161	161	161	162	162	162	163	163	164 a	164 a	164 a	164 a	164 a	164 a	164 a	164 b	164 b	164 b	164 b	164 b	164 b	164 b	164 c	164 c	164 c	164 c	164 c	164 c	164 c	165 a	165 a	165 a	165 b	165 b	165 b	165 b	165 b	165 b	165 b	165 b	166	166	166	167 a	167 a	167 a	167 a	167 b	167 b	167 b	167 b	168 a	168 a	168 b	168 b	169	169
1	Phyllanthus lacunellus															1																																																						
2	Hibiscus aff. platychlamys (M9.15)																																																													1								
2	Solanum lasiophyllum																																																						1													
3	Porana commixta																							1																																						1	2						
5	Waltheria indica																																																																		1		
5	Solanum diversiflorum																																																									1									2	1		
5	Ptilotus fusiformis var. fusiformis																																																																		1	1	
6	Tephrosia aff. densa (B17)																																																										1									
6	Sida rohlenae var. rohlenae																1																																											1									
6	Nicotiana benthamiana																					1								1		1		1												1								1								1					1	1			
6	Sida sp. 'rugose'																																																																	1			
6	Amaranthus interruptus																																																																	1			
6	Gomphrena canescens																																																																		1		
11	Cuscuta victoriana																		1																																																		
13	Euphorbia tannensis subsp. eremophila																		1																																										1								
13	Indigofera linnaei																		1																																																		
13	Trianthema turgidifolia																		2																																																		
13	Synaptantha tillaeacea var. tillaeacea																			2																																																	
15	Achyranthes aspera								1								2							1																1												1				1				1												
15	Malvastrum americanum					1																					1																	1	1														1	1									
16	Boerhavia burbidgeana						1	1	1								1				1																																																
17	Myoporum montanum												1																													1																											
21	Erythrina vespertilio																																						1																													
21	Passiflora foetida																					1																																															
34	Sarcostemma viminale subsp. australe			1																																																																	
48	Abutilon sp. Fortescue (M. Maier 28A-4)																																																										1									
49	Ptilotus spathulatus																																																																	1			
53	Abutilon aff. dioicum (HD72-14)																											2			1	1	1																																					0
53	Eucalyptus xerothermica																															1	2																																			
53	Amaranthus aff. pallidiflorus (D89)																2																													1		1	1											1	1									
53	Ficus opposita									1							2									1																														1														
53	Phyllanthus ciccoides				1	1	1	1	1																									1									1				1	1	1																								2	2
53	Ficus virens var. sublanceolata																														2																1										1																2
53	Paspalidium tabulatum (Burrup Form)	1	1	1	1	1	1	1		4	1	1		1	1	2			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			1	1	1	1	1	1			2	1	1	1		2
53	Dichrostachys spicata									4	4	1	3	3	2					2	1	1	1	1	1	3				1	1	1	1	1		1					1	1	1													1	1	1	1	1	1			2	2		1		
53	Alectryon oleifolius			2			1	1		1	3	1	1	2	1		2		2	2	1		1	1			1		1	1	1	1	1	1		1			1		1	1	1	1	1	1	1	1	1	1	1	1		1		1		1	1	1			1	1	2	1				2
53	Abutilon fraseri						1		1		1	1		5	1		2	1			1	1	1	1				1	1	1	1		1					1	1	1				1	1	1		1	1						1			1	1	1	1			1	1	2	2	1	1		
53	Rhynchosia sp. Burrup (82-1C)														1	2		2			1	1				1		2	1	4	1	1		2			1	1												1	1	1				1		6	4	1	1	2		1	1			1	1	2	3
53	Dicliptera armata									1	1	4			1	2				3	1	2	2	1		1	3	3	3	2	2	1	1			1	1	1			1																4	1	1											2
53	Ipomoea costata	6	6	1		1			1	1	1	2			2	2	2			1	1	1	1	1		2	1	1	1	1	1	1		1		1	1	1		1				1	1		1	1				1	1	1	1	1				1	1	1			2				3	2
53	Terminalia supranitifolia						1		1			2		4	4	1		4		3	1	1	1	1	1	1	2	1	3		2	1	1	1	1	1	1	1						1	1		1	1	1	1	1	1	1			1	1	1				1				3				2	2
53	Brachychiton acuminatus						1		1	1	1	3	1	3	0	1	2	4	1	2		1	1	1		1	2	1	1	1	2	1	1	1	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	4	4	4	1	1	3	1	1	1	1	1		2				2	2
53	Pittosporum phylliraeoides var. phylliraeoides			3		1	1	1			1	3	2		5	2	2		1	2			1									1						1			1	1	1	1		1	1					2	3	4				1											1
53	Clerodendrum tomentosum									1	2				1	2			2			1	1							1	1	1									1	1		1		1	1	1		1						1	1	1		1									
53	Rhagodia eremaea				1	1	1	1	1	1	4		3	3	4	2	2	2		2	1	1	1	1	1	1	1	1	1	1	1	2		1					1	1	1	1	1	1	1	1	1	1	1	1	1						1			1	1			2	2			1	2
53	Scaevola spinescens			1			1				1		2	4			2		3	2			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		1			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1		1
53	Mukia maderaspatana	1	1	1	1	1	1		1	1	1	2	2	1	2	2	2		1	1	1	1	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1	1			1	1		1	1			1	1	1	1	1	2	1	1		1
53	Tinospora smilacina	1	1		1	1	1		1	1	1	2	1	1	1	2	2	2	3		1	1	1	1	1	1		1	1	1	1	1		1	1	1	1	1	1	1	1	1		1	1	1	1	1	1	1				1	1		1	1	1	1								1
53	Jasminum didymum subsp. lineare									1	1					2	2			1	1	1	1	1	1		1	1	1	1	1	1	1		1		1	1	1	1	1	1			1	1			2	1		1					1	1							1						1
53	Flueggea virosa subsp. melanthesoides	1	3	1	1	1	1	1		5	5	2	2	1		2				1	1	1	1	1	1	1	1	1	2	1	2	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	2	1	1	1	1	1	1	1	1	1	1	2	2	0				2
53	Ehretia saligna var. saligna								1	6	5				1				2			1	1	1		2	1	1	1		1	1					1				1		1	1		1		1	1	1	1	1					1	1		1			0	2	1	1	1			1
53	Ptilotus obovatus													4							1	1	1	1				1	1	1														1	1	1														1	1	1		1	1	2	2	1	3		
53	Ficus platypoda							1			1						2	5						1				1		1	1						4	1		1		1		1		1					1			1		1	1		1		1							1				3
53	Trichosanthes cucumerina	1	1	1				1		3	1	2			1	2	2										1	1		1	1				1			1	1	1	1	1		1					1					1	1						1									
53	Commicarpus australis									5		4	3													1		1		1	1	1	1									1	1	1										1																
53	Capparis spinosa var. nummularia	1	1	1	1	1	1		1	4	1	1																	1		1		1		1									1	1	1		1																									
53	Melhania sp. Burrup									1										1								1	1	1			1	1		1																																	1		1	1			1
53	Commelina ensifolia															2							1	1						1	1	1							1				1	1																														1	1	2
53	Cyperus hesperius														1														1		1																	1	1													1				1		1		1				2
53	Plumbago zeylanica										1			1								1									1					1		1		1									1		1																			2
53	Ficus opposita var. indecora	1		1	1		1																																		1					1										1		1	1											1	1		
53	Euphorbia sp. (site 1163)											1			1														1			1				1					1											1									1										2	
53	Tephrosia sp.B Kimberley Flora(C.A.Gardner																								1					1												1																	1										4				
53	Cynanchum floribundum															2													1			1		1			1	1				1																								1							1	2
53	Triodia angusta (Burrup Form)					2	1	1				1	4	2									1							1	1	1	2	2	1	1		1								1	1					1							1	5														2	3
53	Triodia epactia (Burrup Form)			1			1					3	4			1			1					1	2	1	1	1	1		1	2	1		1	1		1	1	1	1	1	1	1		1					1		1	2		4	1		6	4	4	1	3	1	3		3	5	1	1	5	2

Table14: A part of the 2-way table of the overall dataset compiled for the analysis carried out. This part of the 2-way table contains the data for sites that were referred to groups in the analysis that were predominantly rockpile sites.

Gp10C	Plant name	A127	G131	A133	A140	D110	G142	D117	B155	B002	B238	B038	B171	B164	B028	B050	B074	D098	D099	B003	B018	B010	B061
	Area	ANGELIS	GIDISL	ANGELIS	ANGELIS	DOLISL	GIDISL	DOLISL	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	DOLISL	DOLISL	BURPEN	BURPEN	BURPEN	BURPEN
	Habitat code	rpr	rp	rp	rpv	rpv	rpv	rp	rpg	rp	rpr	rp	rp	rpr	rp	rp	rp	scr	scr	dnr	rpv	rpv	rpv
	Coastal					y	y											y	y				
	Group 50 #	42	42	42	42	42	42	42	42	43	43	43	43	43	43	43	43	43	43	44	44	44	44
	Group 200 # and Subdivision -->	157	157	158	158	158	158	158	159	160	160	161	161	161	162	162	162	163	163	164 a	164 a	164 a	164 a
53	Themeda sp. Burrup (B84)	1	2	1			1													1	1		
53	Triodia wiseana (Burrup Form)																	8					
53	Cajanus cinereus		1		1																		
53	Sorghum plumosum	1	2		1																		
53	Pentalepis trichodesmoides																						
53	Stylobasium spathulatum										1												
53	Adriana tomentosa																	1	2				
53	Rhagodia preissii subsp. obovata	3	3								5								2				
53	Canavalia rosea	5		1	1	1	1																
53	Abutilon indicum var. australiense		6			1	1																
53	Vigna lanceolata var. latifolia																						
54	Melhania sp. Fortescue (M33-22)						1			1													
54	Sida aff. fibulifera (oblong; MET 15 220)																						
54	Tribulus occidentalis																						
54	Gymnanthera cunninghamii																						
54	Hakea chordophylla																					1	
54	Sida aff. fibulifera (B64-13B)																						
55	Vigna sp. Burrup (B18)																				1		
55	Tephrosia aff. supina																						
55	Striga curviflora																						
55	Triumfetta appendiculata (Burrup Form)										1			1						1	1	1	1
55	Corchorus walcottii																	2		1			
55	Indigofera monophylla (Burrup form)																	2		1	1	1	
55	Acacia colei																			1			
55	Acacia orthocarpa																						
55	Acacia pyrifolia (green)																						
55	Polycarpaea longiflora (red form)														1						1		
55	Abutilon lepidum		1		1											1							1
55	Eriachne obtusa																						
55	Goodenia microptera																						
55	Streptoglossa decurrens					1												1	2				1
55	Hibiscus sturtii var. campylochlamys																						
55	Pterocaulon sphaeranthoides										1												
55	Acacia elachantha										2												
55	Amaranthus sp. (D111)													1									
55	Pluchea dentex																						
55	Cullen badocanum																						
56	Cheilanthes aff. tenuifolia (B18)																				1		
56	Evolvulus alsinoides var. decumbens																						
56	Rhodanthe margarethae																						
56	Ficus opposita var. aculeata																						
56	Vittadinia virgata																						
56	Solanum cleistogamum																				1		
57	Ehretia ? (B23-22)																						
57	Chenopodium pumilio																						
57	Nicotiana occidentalis subsp. occidentalis																						
57	Ventilago viminalis																						
59	Fimbristylis aff. dichotoma (M75-4)																						
59	Crotalaria medicaginea (Burrup form; B65-11)																	2			1		
59	Tephrosia aff supina (MET 12,357)																			1	1		
59	Trachymene aff. oleracea (B61)	1		1										1	1	1				1	1		1
59	Evolvulus alsinoides var. villosicalyx		1								1							1					1
59	Triumfetta clementii													1			1				1	1	1
59	Gomphrena cunninghamii														2					1	1		1
59	Acacia pyrifolia (slender, white)																						
59	Hybanthus aurantiacus																						
59	Bonamia media var. villosa																						
59	Enchylaena tomentosa					1	1	1		3	1		2	1		2		1	1	1	1	1	1
59	Boerhavia coccinea														1								1
59	Abutilon aff. lepidum (4)																					1	
59	Paspalidium clementii												2										
59	Ptilotus exaltatus var. exaltatus				1																		
59	Digitaria ctenantha																				1		
59	Euphorbia biconvexa						1																
59	Portulaca oleracea													1									
59	Alysicarpus rugosus																						

Gp10C	Plant name	B014	B064	B023	B031	B066	B082	B192	B195	B232	B052	B026	B044	B163	B059	B072	B078	B154	B035	B173	B174	B080	B160
	Area	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN
	Habitat code	rpv	rpv	rp	rpg	rpv	rpv	rp	rp	rp	rpv	rpr	rpr	dn	rpr	rp	rp	rp	rp	rp	sr	rp	rp
	Coastal																						
	Group 50 #	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
	Group 200 # and Subdivision -->	164 a	164 a	164 a	164 b	164 b	164 b	164 b	164 b	164 b	164 b	164 c	164 c	164 c	164 c	164 c	164 c	164 c	165 a	165 a	165 a	165 b	165 b
53	Themeda sp. Burrup (B84)	1			2	1	1	1	1	1	2												
53	Triodia wiseana (Burrup Form)																						
53	Cajanus cinereus					1						1	1				1						
53	Sorghum plumosum																						
53	Pentalepis trichodesmoides										1												
53	Stylobasium spathulatum																	1		1	1		
53	Adriana tomentosa																						
53	Rhagodia preissii subsp. obovata									1		1	1	1									
53	Canavalia rosea														1								
53	Abutilon indicum var. australiense																						
53	Vigna lanceolata var. latifolia																						
54	Melhania sp. Fortescue (M33-22)							1															
54	Sida aff. fibulifera (oblong; MET 15 220)		1																				
54	Tribulus occidentalis		1																				
54	Gymnanthera cunninghamii																						
54	Hakea chordophylla																						
54	Sida aff. fibulifera (B64-13B)		1																				
55	Vigna sp. Burrup (B18)																						
55	Tephrosia aff. supina																						
55	Striga curviflora																						
55	Triumfetta appendiculata (Burrup Form)	1	1	1	1	1	1		1		1	1	1	1	1		1	1					
55	Corchorus walcottii		1	1	1	1	1		1	1												1	
55	Indigofera monophylla (Burrup form)		1		1	1					1	1			1								
55	Acacia colei			1					1														1
55	Acacia orthocarpa																						
55	Acacia pyrifolia (green)												1										
55	Polycarpaea longiflora (red form)																1						
55	Abutilon lepidum		1			1																	
55	Eriachne obtusa																						
55	Goodenia microptera																						
55	Streptoglossa decurrens		1											1									
55	Hibiscus sturtii var. campylochlamys											1											
55	Pterocaulon sphaeranthoides																						
55	Acacia elachantha																						
55	Amaranthus sp. (D111)		1																				
55	Pluchea dentex													1									
55	Cullen badocanum																						
56	Cheilanthes aff. tenuifolia (B18)																					1	
56	Evolvulus alsinoides var. decumbens																						
56	Rhodanthe margarethae										1												
56	Ficus opposita var. aculeata										1											1	
56	Vittadinia virgata																						
56	Solanum cleistogamum																						
57	Ehretia ? (B23-22)			1																			
57	Chenopodium pumilio																			1	1		
57	Nicotiana occidentalis subsp. occidentalis																			1			
57	Ventilago viminalis																						
59	Fimbristylis aff. dichotoma (M75-4)																						
59	Crotalaria medicaginea (Burrup form; B65-11)						1																
59	Tephrosia aff supina (MET 12,357)	1			1																		
59	Trachymene aff. oleracea (B61)		1	1		1	1							1			1	1					
59	Evolvulus alsinoides var. villosicalyx																					1	
59	Triumfetta clementii					1	1	1	1				1				1	1					
59	Gomphrena cunninghamii	1										1		1			1						
59	Acacia pyrifolia (slender, white)																						
59	Hybanthus aurantiacus																						
59	Bonamia media var. villosa																						
59	Enchylaena tomentosa	1	1	3															1	1	1	1	
59	Boerhavia coccinea		1				1													1			1
59	Abutilon aff. lepidum (4)																						
59	Paspalidium clementii				1							1					1			1			
59	Ptilotus exaltatus var. exaltatus															1							
59	Digitaria ctenantha																						
59	Euphorbia biconvexa						1																
59	Portulaca oleracea																						
59	Alysicarpus rugosus																						

Gp10C	Plant name	D100	D108	D089	D087	D114	D106	D094	D103	D125	B039	B183	B055	B056	B084	B182	B085	B093	B079	B169	B090	B091	B045	B046
	Area	DOLISL	DOLISL	DOLISL	DOLISL	DOLISL	DOLISL	DOLISL	DOLISL	DOLISL	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN
	Habitat code	rp	rp	rpv	rpv	rp	rpr	rpr	rpr	rp	dnr	rpv	smr	dnr	rpv	rp	smr	dnr	smr	rp	rpg	sr	scr	rp
	Coastal						y	y	y															
	Group 50 #	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
	Group 200 # and Subdivision -->	165 b	165 b	165 b	165 b	165 b	165 b	166	166	166	167 a	167 a	167 a	167 a	167 b	167 b	167 b	167 b	168 a	168 a	168 b	168 b	169	169
53	Themeda sp. Burrup (B84)										1	1	5	1	2	1	7	1	7	4	1	6	5	4
53	Triodia wiseana (Burrup Form)																							
53	Cajanus cinereus										1					1	1					2	2	
53	Sorghum plumosum																							
53	Pentalepis trichodesmoides																							
53	Stylobasium spathulatum																			2				
53	Adriana tomentosa																							
53	Rhagodia preissii subsp. obovata						1	1	1	1			1								1			
53	Canavalia rosea																							
53	Abutilon indicum var. australiense																							
53	Vigna lanceolata var. latifolia																							2
54	Melhania sp. Fortescue (M33-22)																			1	1			
54	Sida aff. fibulifera (oblong; MET 15 220)																							
54	Tribulus occidentalis																							
54	Gymnanthera cunninghamii					1																		
54	Hakea chordophylla		1																					
54	Sida aff. fibulifera (B64-13B)																							
55	Vigna sp. Burrup (B18)																							
55	Tephrosia aff. supina																					1		
55	Striga curviflora																1		1			1		
55	Triumfetta appendiculata (Burrup Form)		1	1	1	1		1	1		1	1		1	1	1	1		2	1	1	1	2	2
55	Corchorus walcottii							3				1	1	1	1	1	1	1	4	1	1	2	2	1
55	Indigofera monophylla (Burrup form)				1	1		1			1	1	1	1	1	1	1	1	3		1	1	3	
55	Acacia colei																				1		3	1
55	Acacia orthocarpa										1				1		1	1	3	2	1	1		
55	Acacia pyrifolia (green)													1	1	1	1	1						
55	Polycarpaea longiflora (red form)												1								1	1		
55	Abutilon lepidum										1				1	1	1	1			1			
55	Eriachne obtusa																					1		
55	Goodenia microptera																		2			1		
55	Streptoglossa decurrens			1				1	1								1		1	1	1	1	2	1
55	Hibiscus sturtii var. campylochlamys											1	1						1	1	1	1		
55	Pterocaulon sphaeranthoides																							
55	Acacia elachantha										1		1	1										
55	Amaranthus sp. (D111)								1													1		
55	Pluchea dentex										1												2	
55	Cullen badocanum																						2	
56	Cheilanthes aff. tenuifolia (B18)	1											1	1	1	1			2		1	1	2	2
56	Evolvulus alsinoides var. decumbens												1		1									
56	Rhodanthe margarethae														1				1					
56	Ficus opposita var. aculeata		1																		1			
56	Vittadinia virgata														1				1		1	1		
56	Solanum cleistogamum											1											1	
57	Ehretia ? (B23-22)													1										
57	Chenopodium pumilio																							
57	Nicotiana occidentalis subsp. occidentalis																		1					
57	Ventilago viminalis																		2					
59	Fimbristylis aff. dichotoma (M75-4)																						2	
59	Crotalaria medicaginea (Burrup form; B65-11)												1	1					1			1		
59	Tephrosia aff supina (MET 12,357)																						2	1
59	Trachymene aff. oleracea (B61)											1	1	1		1				1	1		1	2
59	Evolvulus alsinoides var. villosicalyx							1				1	1	1	1	1	1		2	1	1	1	1	1
59	Triumfetta clementii		1		1		1	1			1		1	1	1	1	1	1	2		1	1	2	1
59	Gomphrena cunninghamii												1							1	1			
59	Acacia pyrifolia (slender, white)																		2					
59	Hybanthus aurantiacus													1	1	1			2	1	1	1		
59	Bonamia media var. villosa																1							
59	Enchylaena tomentosa				1	1	1								1	1	1	1		2				
59	Boerhavia coccinea	1										1			1			1	1	2	1			
59	Abutilon aff. lepidum (4)																			1			2	
59	Paspalidium clementii							1			1			1					2		1		1	
59	Ptilotus exaltatus var. exaltatus																							
59	Digitaria ctenantha							1				1									1			
59	Euphorbia biconvexa																							
59	Portulaca oleracea																			1	1			
59	Alysicarpus rugosus																				1	1		

Table14: A part of the 2-way table of the overall dataset compiled for the analysis carried out. This part of the 2-way table contains the data for sites that were referred to groups in the analysis that were predominantly rockpile sites.

Gp10C	Area	ANGELIS	GIDISL	ANGELIS	ANGELIS	DOLISL	GIDISL	DOLISL	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	DOLISL	DOLISL	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	DOLISL	DOLISL	DOLISL	DOLISL	DOLISL	DOLISL	DOLISL	DOLISL	DOLISL	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN
	Site	A127	G131	A133	A140	D110	G142	D117	B155	B002	B238	B038	B171	B164	B028	B050	B074	D098	D099	B003	B018	B010	B061	B014	B064	B023	B031	B066	B082	B192	B195	B232	B052	B026	B044	B163	B059	B072	B078	B154	B035	B173	B174	B080	B160	D100	D108	D089	D087	D114	D106	D094	D103	D125	B039	B183	B055	B056	B084	B182	B085	B093	B079	B169	B090	B091	B045	B046
	Habitat code	rpr	rp	rp	rpv	rpv	rpv	rp	rpg	rp	rpr	rp	rp	rpr	rp	rp	rp	scr	scr	dnr	rpv	rpv	rpv	rpv	rpv	rp	rpg	rpv	rpv	rp	rp	rp	rpv	rpr	rpr	dn	rpr	rp	rp	rp	rp	rp	sr	rp	rp	rp	rp	rpv	rpv	rp	rpr	rpr	rpr	rp	dnr	rpv	smr	dnr	rpv	rp	smr	dnr	smr	rp	rpg	sr	scr	rp
	Coastal					y	y											y	y																																y	y	y															
	Group 50 #	42	42	42	42	42	42	42	42	43	43	43	43	43	43	43	43	43	43	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Gp10C	Plant name / Group 200 # and Subdivision -->	157	157	158	158	158	158	158	159	160	160	161	161	161	162	162	162	163	163	164 a	164 a	164 a	164 a	164 a	164 a	164 a	164 b	164 b	164 b	164 b	164 b	164 b	164 b	164 c	164 c	164 c	164 c	164 c	164 c	164 c	165 a	165 a	165 a	165 b	165 b	165 b	165 b	165 b	165 b	165 b	165 b	166	166	166	167 a	167 a	167 a	167 a	167 b	167 b	167 b	167 b	168 a	168 a	168 b	168 b	169	169
59	Portulaca pilosa																																																								1								1	1		
60	Hakea lorea ssp. lorea																																																																1			
60	Acacia inaequilatera																																																																1			
60	Cassia glutinosa										1			2						1			1									1			1																		1			1		1		1			2	2				
60	Corymbia hamersleyana																			2			1					1	1																												4		1	1	1		2					
60	Bulbostylis barbata																																													1				1		1												1			2	
60	Mollugo molluginis																																																																1		
60	Tephrosia supina																																																															1			
60	Gossypium australe (Burrup Peninsula form)																																																															1	1		
60	Eriachne mucronata																				1																													1									1				2					
60	Cassia venusta																																																			1														1		
60	Solanum phlomoides																													1																																						
60	Rhynchosia cf. minima		1	1		1	1	1		6	1					2				1	1	1	1	2		1		1	1			1				1		1	1	1																				1	1		1		1	1		
60	Indigofera trita	1	1		1	1	1											2			1	1			1		1		1	1	1																												1		1			1	1			
60	Chrysopogon fallax									3										2	1			1												1		1																														
60	Cassytha capillaris																								1		1			1	1		1		1																										1						1	
60	Cleome viscosa					1	1			2		1		1	1			1	1	1	1		1	1	1		1				1						1		1			1	1	1					1		1	1	1		1	1	1	1	1					1	1	1		
60	Phyllanthus maderaspatensis var.		1		1			1		1	1					1		2	2	1	1	1	1	1	1				1	1	1						1							1		1	1								1		1		1		1		2	2	1	1	1	
60	Trichodesma zeylanicum	1			1		1	1		1	1				1			2	2	1	1				1		1		1	1	1			1	1	1				1					1	1	1		1	1		1	1		1				1	1	1	1	1	1	1	1	2	2
60	Solanum horridum					1				2	1	1	1	1				2		1		1			1		1	1	1	1	1		1	1	1	1				1	1	1	1		1	1	1	1	1	1		1	1		1				1	1	1	1		1			1	1
60	Pterocaulon sphacelatum					1	1						1					1	2				1		1			1	1	1	1		1			1				1				1	1	1	1	1	1	1	1	1	1		1				1			1	1	2	1	1	3	2
60	Cenchrus ciliaris									8						3		1		1	1	1	1	1	1													1																			1							2		1		
60	Acacia bivenosa		1								1							1						1	1	1					1																					1	1										2	2				1
60	Cymbopogon ambiguus			1					1		1			1	2	2	2			1	1	1				1	1	1	1	1	1		1	1	1	1	1	1	1	1				1	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	2	2
60	Acacia coriacea									4	6	4	3	3		2	3	2	4	1	1	1	1	1	1		1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1		1		1	1	1		1	1	2	2	1	1	3	2
60	Grevillea pyramidalis																			1		1	1	1		1		1	1		1	1	1			1													1				1										1	2			1	
60	Boerhavia gardneri									2				1													1	1		1			1	1	1						1			1			1	1				1	1		1						1					1		2
60	Aerva javanica		2							4			0	1						1		1			1													1										1													1			2	1	1		
60	Indigofera colutea																																																																1			
60	Indigofera linifolia																	1							1																																							1				
60	Euphorbia coghlanii						1																																																					1							2	2
60	Swainsona formosa																	1							1																																							1	1			
69	Eriachne tenuiculmis																																																						1													
69	Stemodia grossa																	1																																																		
69	Sesbania cannabina				1																																																															
69	Pluchea rubelliflora																																			1																																
69	Cyperus bifax																																			1																																
69	Eucalyptus victrix										3																				1																1																					
69	Terminalia canescens																4												4						1		1		1					1			1			1		3	3				0	1			1	1						
69	Amaranthus pallidiflorus														2																			1																																		
71	Eragrostis tenellula																																			1																																
71	Cyperus squarrosus																																			1																																
78	Euphorbia drummondii																																																																	1		
81	Gossypium australe (Whim Creek form)																																							1																												
81	Hibiscus goldsworthii																																											1																								
85	Threlkeldia diffusa						1																																																													
86	Scaevola scabrida													4																																																						
87	Tribulus macrocarpus																																1																																			
94	Cullen stipulaceum																																																																1			
95	Tephrosia rosea var. clementii																											1																																							1	
95	Cassia notabilis																																																																			2
97	Acacia tenuissima																																																								1			1								
97	Sida cardiophylla																																																											1								
97	Triumfetta maconochieana																																																								1										3	
97	Heliotropium tenuifolium																		1																																																	

5.3.3 Slope vegetation of the Burrup Peninsula, Dolphin, Gidley and Angel Islands

The vegetation discussed in this section as the slope vegetation of the Burrup Peninsula, Dolphin, Angel and Gidley Islands (the core survey area) was recorded mainly from slopes of varying degrees of steepness and rockiness. However, Tables 9 and 10 show the sites come from a range of the habitat units defined in Table 7.

The slope vegetation was classified in the analysis as group 46 at the 50 group level, which was restricted to the core survey area. With three sites recorded on Angel Island, three sites recorded on Gidley Island, two sites recorded on Dolphin Island and thirty-six recorded on the Burrup Peninsula, this group contains a significant part of the variation of the vegetation of the Burrup Peninsula. Group 46 (50 group level) was divided in the analysis into seven groups at the 200 group level: groups 174 to 180.

Figure 5 shows that there is some strong geographical patterning in the distribution of groups 174 to 180 (200 group level) in the core study area:

- Group 174 is restricted to Gidley and Angel Islands;

- Group 175 was only recorded from the southern part of the Burrup Peninsula;

- Group 176 was only recorded from the northern two-thirds of the Peninsula;

- Group 177 was only recorded from the northern part of the Peninsula and Dolphin Island;

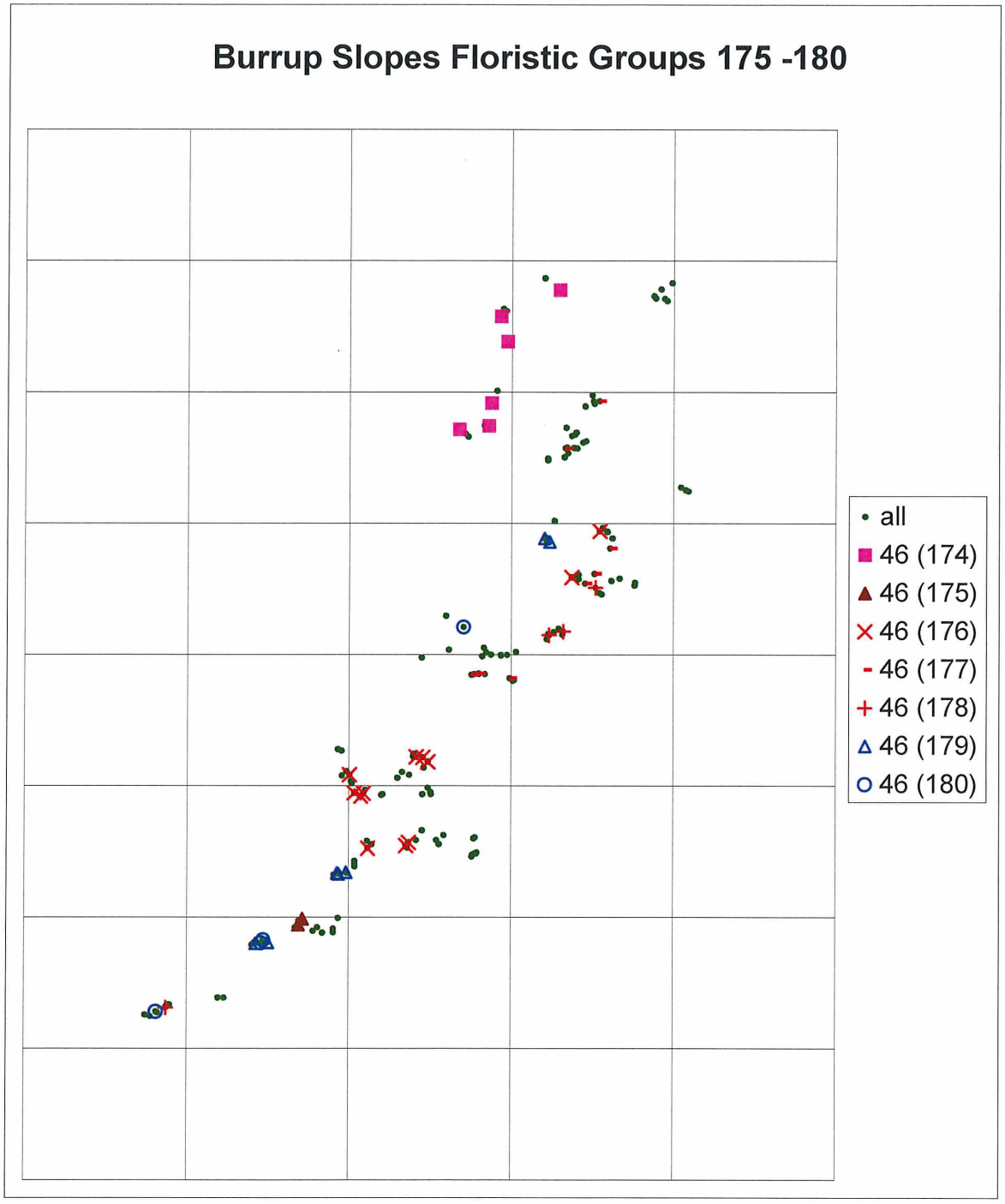
- Group 178 was recorded from the length of the Peninsula;

- Group 179 was recorded from most of the length of the Peninsula;

- Group 180 was recorded from the southern two-thirds of the Peninsula.

It is likely that further sampling on Dolphin Island would record more of these groups there, as it is under sampled. It is also likely that the more widespread groups occur more densely than the present level of sampling indicates. However, it seems likely that the more restricted groups are genuinely restricted.

Figure 5: Distribution of the seven 200 level Groups (Groups 174 to 180) belonging to Group 46 (50 group level) in the core study area.



5.3.4 Vegetation of narrow drainage lines on the Burrup Peninsula, Dolphin, Gidley and Angel Islands

The narrow drainage line sites recorded from the core study area were mainly from Group 50 (of the 50 group level), which was restricted in the analysis to the Core study area, being only recorded from the Burrup Peninsula and Dolphin Island. Five groups at the 200 group level were referred to group 50, these were groups 196 to 200. Some sites from other habitats were included in the group

There is some geographic patterning in the group for the core study area (see Figure 6 below), but it is not as strong as for the groups discussed above.

- Group 196 was recorded from the southern part of Dolphin Island and most of the length of the Burrup Peninsula (9 sites);

- Group 197 was only recorded from one site in the southern part of the Peninsula;

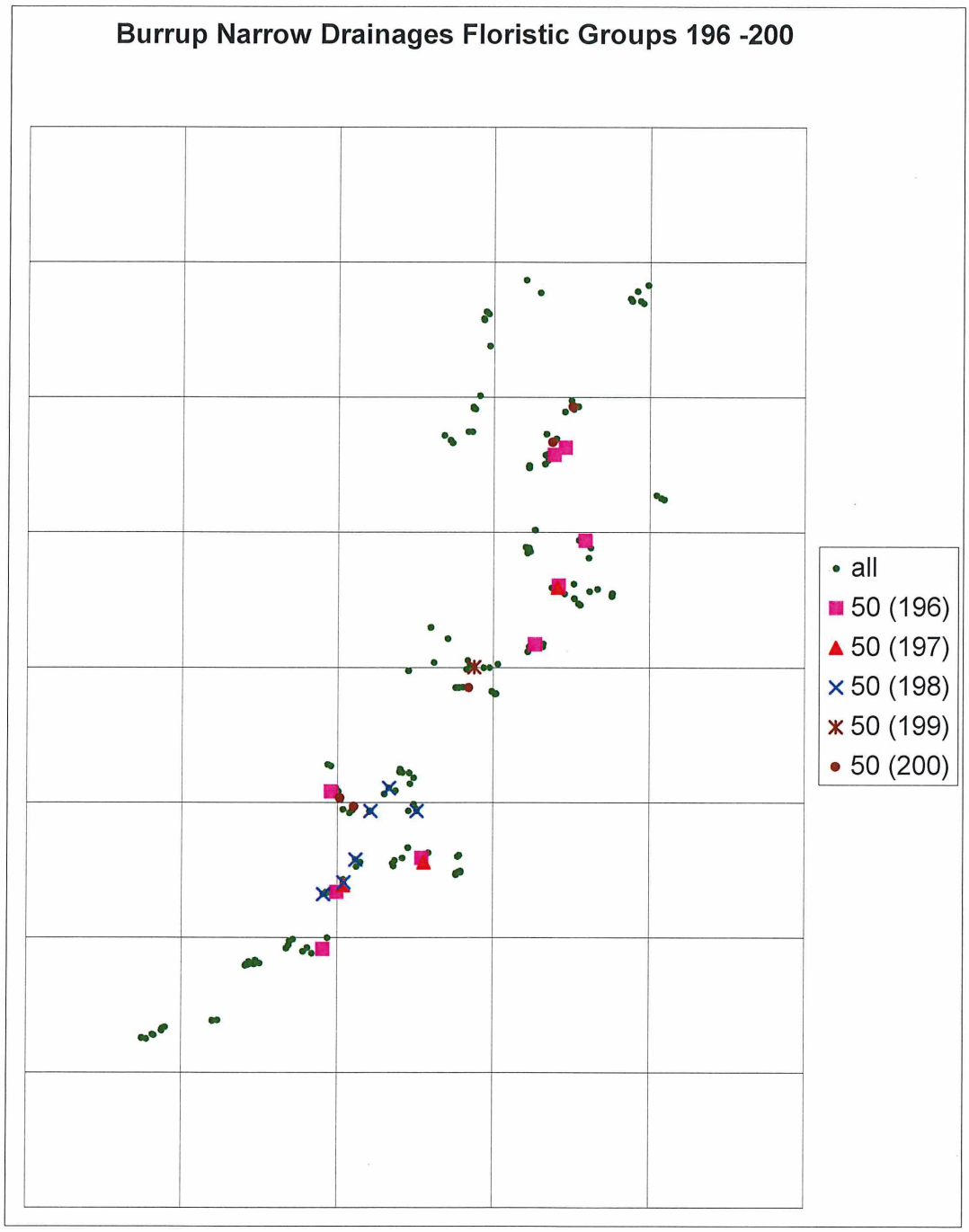
- Group 198 was only recorded from the southern part of the Peninsula (six sites);

- Group 199 was only recorded at one site near the centre of the Peninsula; and

- Group 200 was recorded from the southern part of Dolphin Island and the northern two-thirds of the Burrup Peninsula.

None of Groups 196 to 200 were recorded from Angel Island, Gidley Island or the northern half of Dolphin Island. While this may be due to sampling density or lack of appropriate habitat, it seems more likely to suggest they are absent. Possibly the terrain on Angel and Gidley Islands is not rugged enough for appropriate habit to be present. .

Figure 6: Distribution of Groups 196 to 200, the five 200 group level groups in Group 50, with most sites in narrow drainage lines.



5.3.5 Vegetation of coastal sites on the Burrup Peninsula, Dolphin, Gidley and Angel Islands

Although a limited number of sites were recorded in coastal habitat types during the survey, four floristic groups were found to be present at the 50 group level: groups 25, 26, 27 and 28. Eight groups at the 200group level were referred to these four groups.

The distribution of the sites is shows on Figure 7, with most of the sites on the islands the northern part of the Burrup Peninsula. This partly reflects the fact that coastal areas (especially dune areas and sandy areas behind beaches) on the Burrup Peninsula have been badly degraded, making location of worthwhile sites on the southern parts of the Peninsula difficult (there are some sites on the east coast that could be sampled).

There appears to be some geographic pattern in those sites recorded, with:

- all Group 25 sites on the west cost of Angel and Gidley Island and the Peninsula;

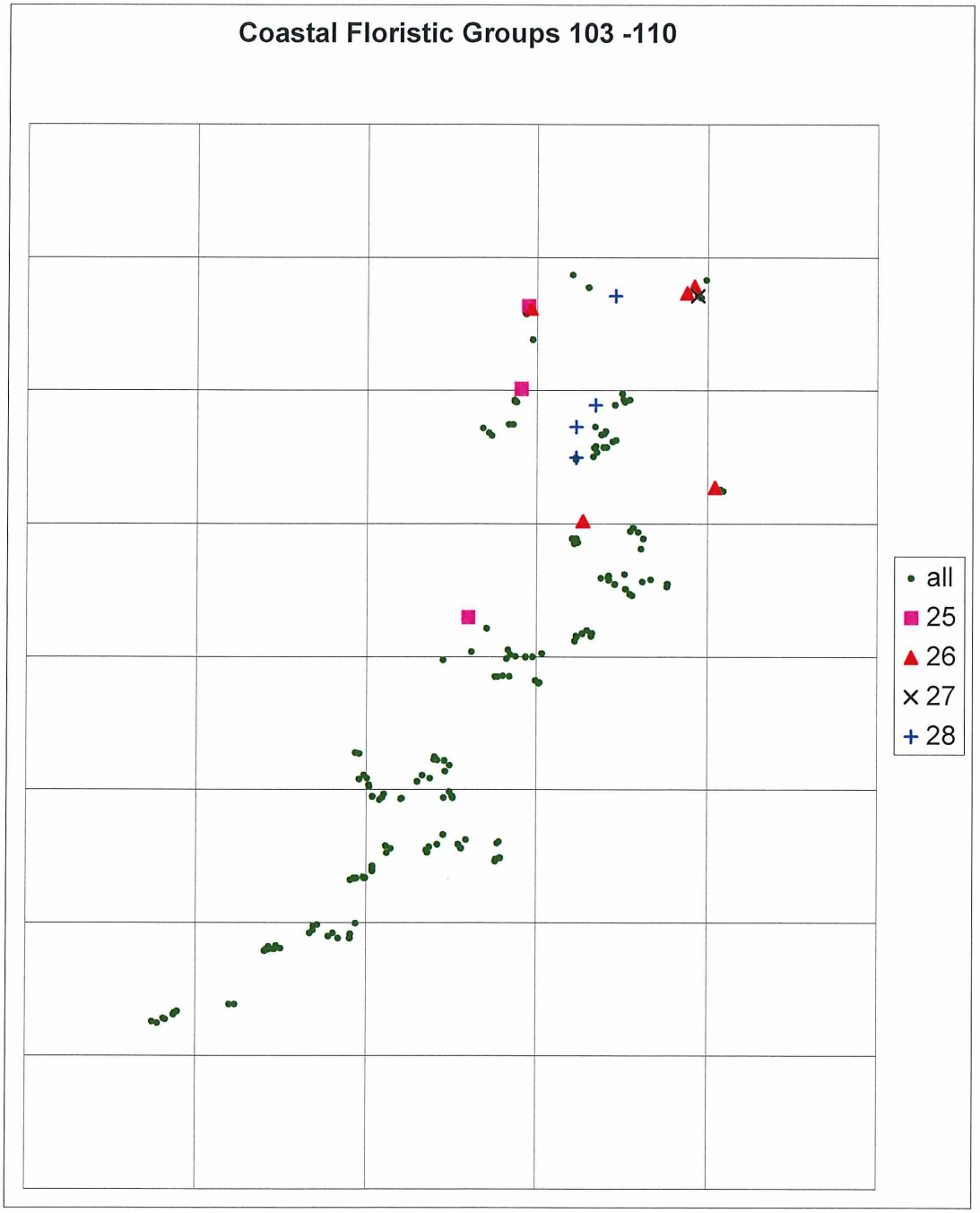
- two sites from Group 26 on the northern end of the Burrup Peninsula, two others on the north-west part of Dolphin Island and one near the north end of Gidley Island;

- the four sites in Group 28 all lying on the west coast of Dolphin Island.

The one site referred to Group 27 was located near the north-west corner of Dolphin Island.

Off particular interest in relation to this overall group of coastal sites was the significant degree of overlap between the core survey area (Burrup Peninsula and adjacent Islands) and the Cape Preston survey area. Two of the four of the 50 group level groups discussed immediately above (Groups 25 and 26) also occur in the Cape Preston survey area. However, there is significant difference at the 200 group level between the two survey areas, as well as at the 50 group level. There are two 200 group level groups (Groups 103 and 104) in Group 25 with only one of these at Cape Preston (103). Within Group 26, there are four 200group level groups (105-108), of these only 108 has been recorded at Cape Preston, but it has not been recorded in the core study area. The relatively small sample sizes involved mean that some of the difference (at the 50 group level at least) could be related to chance in the sample selection.

Figure 7: Distribution of Groups 25, 26, 27 and 28 in the core survey area (Burrup Peninsula, Dolphin, Angel and Gidley Islands).



6.0 OVERVIEW OF THE VEGETATION OF THE BURRUP PENINSULA STUDY AREA

6.1 Relationship to the surrounding region

The overall data set compiled for this report shows a very large range of vegetation units at two broad levels, the 50 and 200 group levels used in the study. However, in spite of the large range of units identified, the vegetation of the region has, overall, a remarkable apparent uniformity. This apparent uniformity is rooted in the very similar appearance of the dominant grass species, the "spinifexes", or members of the genus *Triodia* - some of which even specialist botanists can have difficulty identifying.

In spite of this apparent uniformity, the analysis shows that the vegetation of the Burrup Peninsula, Dolphin Island, Angel Island and Gidley Island has a low level of overlap, at the 50 group level, with the vegetation of the surrounding region. In fact most of the overlap is associated with coastal habitats, with the coastal sands providing a specialised niche. Table clearly shows that the overlap is quite small.

The basis of the difference in the vegetation of the Burrup Peninsula, Dolphin Island, Angel Island and Gidley Island from other areas in the dataset is probably to be found in a combination of geology, microclimate and episodes of isolation from the mainland at times of higher sea level.

The different geology provides different soil, making different niches available. The maritime location means that the climate is not so harsh, being a little cooler in summer than inland areas and a little warmer in winter. Obviously, the humidity would also be higher, especially in summer. Microclimate factors may be controlling the distribution of species such as *Abutilon indicum* var. *australiense*.

6.2 Variation within the vegetation of the core study area

Significant geographic based patterns of distribution were noticed for the floristic units of each of the landscape groups discussed above, with the "coastal" group having the weakest pattern, possibly because of the low number of sites recorded in this landscape group.

The pattern appears to be consistent for the rockpiles, sloes and to a lesser degree the narrow drainage lines. There appears to be northern, central and southern sections of the Peninsula based on the relatively consistent paterns of distribution of some groups of units, although others overlap these. This consistency strongly suggests that the factors controlling these patterns are "real" and not an artifact of sampling intensity or interpretation.

The result is a mosaic of values of significant complexity. The cause of these distribution patterns needs further research. However, it seems likely that microclimatic factors are responsible for at least some of the variation , given fact that the outer (northern) ends of the islands frequently had different types to the Peninsula. Other factors are likely to be landscape and soils. Isolation of parts of the Peninsula at times of higher sea level may also be a cause.

It is concluded that the variation in the composition of plant communities on comparable habitats (eg. rockpiles) on the Burrup Peninsula and adjacent Islands has a significant geographical component. Management to maintain this variation into the future requires careful consideration of the nature and controls of these patterns.

7.0 ACKNOWLEDGEMENTS

The sites recorded during the current study were recorded by Vicki Long, Malcolm Trudgen and Arthur Weston, with field assistance by Brett Murphy, Martin Henson and others

Data entry was largely carried out by M. Henson, with substantial checking by Melinda Trudgen of the entry of species in the site lists.

Corrections to the vegetation descriptions and cover records where they were not recorded to the agreed methodology were carefully carried out by Brian Morgan and entered by Asha Lourdes.

The sites recorded at Cape Preston (for the Austeel Cape Preston project) were recorded by Michi Maier and Malcolm Trudgen, efficiently assisted by Melinda Trudgen.

The sites in the Chichester Ranges area (for the RRIA West Angelas Project were recorded by Malcolm Trudgen assisted by Sylvana Delucca, except for about fifty, which were recorded by A. Weston.

8.0 REFERENCES

Belbin, L. (1987). PATN Reference Manual (313p), Users Guide (79p), Command Manual (47p), and Example Manual (108p). CSIRO Division of Wildlife and Ecology, Lynham, ACT.

Biota Environmental Sciences and M.E. Trudgen & Associates (2000). Austeel Biological Survey Phase 1. Prepared for Austeel Pty Ltd as subconsultants to Halpern Glick Maunsell Pty Ltd.

Faith, D.P, Minchin, P.R. and Belbin. L. (1987). Compositional dissimilarity as a robust measure of ecological distance. Vegetatio 69: 57-68.

Gibson, N.G., Keighery, B.J., Keighery, G.J., Burbidge, A.H. and Lyons, M (1994) 'Floristic Survey of the Southern Swan Coastal Plain'. Unpublished report by the Department of Conservation and Land Management and the Conservation Council of Western Australia to Australian Heritage Commission.

Mueller-Dombois, P. and Ellenberg, H., (1974) "Aims and Methods of Vegetation Ecology". Wiley New York 547 pp.

Trudgen, M.E. & N. Casson (1998). Flora and vegetation surveys of Orebody A and Orebody B in the West Angela Hill area, an area surrounding them, and of rail route options considered to link them to the existing Robe River Iron Associates rail line. Unpublished report for Robe River Iron Associates.

Trudgen, M.E. (1999) *A flora and vegetation survey of Lots 46 and 47 Maralla Road and Lexia Avenue, Ellenbrook.* Volumes 1-4. Unpublished report prepared for the Crown Solicitors Office, Government of Western Australia. December 1999.

Appendix 1 Description of the two levels of floristic groups defined for the Burrup study area and the regional data sets

The two levels of floristic groups defined are presented together, to show the relationship of the lower level groups (200 group level) to the higher groups (50 group level). That is under each group defined at the 50 group level the groups from the 200 groop level that fall within it are given.

For each each group defined at the 50 group level:

- the average number of species per site is given;
- the number of sites in the different locations is given;
- the number of sites in the different habitat units used is given;
- the most commonly occuring species are listed, with their site frequency and range of cover recorded.

For each each group defined at the 200 group level:

- the average number of species per site is given;
- the number of sites in the different locations is given;
- the number of sites in the different habitat units used is given;
- the relevant section of the dendrogram (see Appendix 2)is given to show the relationships within the 200 level group described;
- the vegetation descriptions for each site in the group are given;
- the soil description for each site in the group are given;
- the most commonly occuring species are listed, with their site frequency and range of cover recorded.

Location codes BURPEN –Burrup Peninsular, ANGELISL – Angel Island, DOLISL – Dolphin , GIDISL – Gidley Island, CAPPRE – Cape Preston, HAMIR – Hamersley Rail Line, HARDAM – Harding Dam, KARHIL – Karratha Hills, WANGEL – Chichester Ranges and adjoining areas and Whim Creek.

Table T6 gives the descriptions of the habitat units referred to by the codes scs, sls etc (see text).

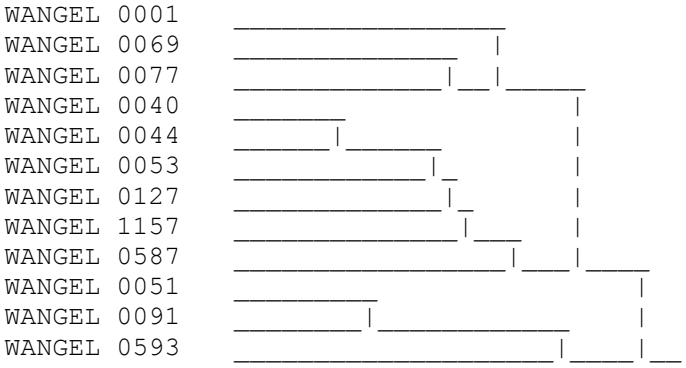
50 Group Level, Member: 1,

Average Number of Species / Site: 13
Sites from: WANGEL - 70
Sites in Habitats: scs - 17 sls - 17 smr - 8 scr - 8 dns - 6 sms - 5 ps - 5 sl - 1 sm - 1

Common Species: (Name - % of Sites, Range of Cover)
Triodia wiseana - 100%, 1-5% to 50-70%
Corymbia hamersleyana - 46%, <1% to 5-10%
Corchorus laniflorus - 43%, <1% to 10-25%

200 Floristic Group Level, Unit: 1,

Average Number of Species / Site: 12
Sites from: WANGEL - 12
Sites in Habitats: sls - 8 scs - 2 sms - 1 scr - 1
Portion of Dendrogram: (Area and Site on left)



Vegetation Description:
WANGEL 0001 Scattered tall shrubs of Acacia ancistrocarpa over Triodia wiseana hummock grassland
WANGEL 0069 Scattered shrubs of Acacia arida over Triodia wiseana hummock grassland
WANGEL 0077 Scattered low trees of Corymbia hamersleyana over Acacia arida~ Acacia bivenosa~ Acacia pyrifolia (slender form) open shrubland over Triodia wiseana hummock grassland
WANGEL 0040 Triodia wiseana hummock grassland
WANGEL 0044 Scattered shrubs of Acacia inaequilatera and Acacia ancistrocarpa over Triodia wiseana hummock grasland
WANGEL 0053 Triodia wiseana hummock grassland
WANGEL 0127 Scattered tall shrubs of Acacia pyrifolia (corky) over Triodia wiseana hummock grassland
WANGEL 1157 Scattered Acacia pyrifolia (corky form)~ Hakea suberea and Hakea chordophylla low trees over Triodia wiseana open hummock grassland
WANGEL 0587 Triodia wiseana hummock grassland
WANGEL 0051 Scattered shrubs of Acacia arida over Corchorus sp._Millstream low shrubland over Triodia wiseana hummock grassland
WANGEL 0091 Triodia wiseana hummock grassland
WANGEL 0593 Triodia wiseana hummock grassland

Soil:
WANGEL 0001 Red-brown loam with some pebbles and cobbles
WANGEL 0069 Gravelly red-brown clay/loam. Some pebbles scattered on surface~ more in patches
WANGEL 0077 Red-brown loam with a pebbly surface~ a few cobbles~ some large
WANGEL 0040 Red-brown pebbly loam

WANGEL 0044 Coarsely pebbly surface over pebbly red-brown loam. With patches of cracking clay
WANGEL 0053 Orange-brown gravelly loam with gravelly surface. Some low outcrop of volcanics (basic)
WANGEL 0127 Soil + same
WANGEL 1157 Gravelly~ Pebbly~ cobbly red-brown loam with gravel~ pebble~ cobble surface
WANGEL 0587 Pebbly~ orange-brown loam with coarse pebble surface (some cobbles)
WANGEL 0051 Orange-brown gravelly loam
WANGEL 0091 Gravelly/pebbly surface over orange-brown clay/loam
WANGEL 0593 Orange-brown very pebbly loam with coarse pebble surface

Common Species: (Name - % of Sites, Range of Cover)
Triodia wiseana - 100%, 33-50% to 50-70%
Acacia arida - 75%, <1% to 1-5%
Mollugo molluginis - 67%, <1% to <1%
Hakea lorea ssp. lorea - 58%, <1% to 1-5%
Ptilotus astrolasius - 50%, <1% to <1%
Corymbia hamersleyana - 50%, <1% to <1%

200 Floristic Group Level, Unit: 2,

Average Number of Species / Site: 14
Sites from: WANGEL - 3
Sites in Habitats: sls - 2 sl - 1
Portion of Dendrogram: (Area and Site on left)
WANGEL 0070 _____
WANGEL 0085 _____ |
WANGEL 1105 _____|___|_____

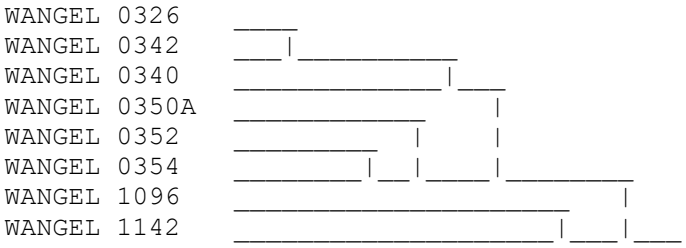
Vegetation Description:
WANGEL 0070 Acacia bivenosa~ Petalostylis labicheoides shrubland over Triodia wiseana hummock grassland
WANGEL 0085 Scattered low trees of Corymbia hamersleyana over Acacia bivenosa~ Acacia pyrifolia (slender form) open shrubland over Triodia wiseana hummock grassland
WANGEL 1105 Corymbia hamersleyana low openwoodland over Acacia bivenosa~ Acacia arida shrubland over Triodia wiseana hummock grassland

Soil:
WANGEL 0070 Brown very pebbly (calcrete~ angular) loam
WANGEL 0085 Brown loam~ surface~ damp. Variant of site 77. Wetter in places
WANGEL 1105 Red-brown gravelly~ pebbly loamy fine sand

Common Species: (Name - % of Sites, Range of Cover)
Cassia glutinosa - 100%, <1% to <1%
Triodia wiseana - 100%, 33-50% to 50-70%
Corymbia hamersleyana - 100%, <1% to 1-5%
Acacia bivenosa - 100%, 5-10% to 10-25%
Corchorus sp.Millstream(A.S.George 3488) - 67%, <1% to <1%
Acacia pyrifolia (slender form) - 67%, <1% to 1-5%
Acacia arida - 67%, <1% to 1-5%

200 Floristic Group Level, Unit: 3,

Average Number of Species / Site: 8
Sites from: WANGEL - 8
Sites in Habitats: scs - 3 sms - 2 ps - 1 sm - 1 smr - 1
Portion of Dendrogram: (Area and Site on left)



Vegetation Description:

WANGEL 0326 Triodia wiseana hummock grassland
WANGEL 0342 Indigofera monophylla (grey leaflet form) low open shrubland over Triodia wiseana hummock grassland
WANGEL 0340 Scattered shrubs of Cajanus cinereus over Triodia wiseana and Triodia brizoides hummock grassland
WANGEL 0350A Scattered low trees of Eucalyptus leucophloia and Corymbia hamersleyana over low scattered shrubs of Acacia bivenosa over Triodia wiseana hummock grassland
WANGEL 0352 Triodia wiseana hummock grassland
WANGEL 0354 Grevillea pyramidalis open shrubland over Triodia wiseana hummock grassland
WANGEL 1096 Cassia glutinosa open shrubland over Indigofera monophylla (grey leaflet form) low open shrubland over Triodia wiseana open hummock grassland
WANGEL 1142 Scattered Indigofera monophylla (grey leaflet form) and Stemodia grossa low shrubs over Triodia wiseana hummock grassland

Soil:

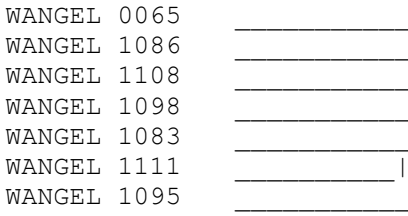
WANGEL 0326 = site 324
WANGEL 0342 Orange-brown gravelly loam with angular gravel/pebble surface
WANGEL 0340 Quite rocky
WANGEL 0350A Red-brown pebbly loam. Surface pebbly/cobbly
WANGEL 0352 Orange-brown pebbly loam with gravelly~ pebbly surface
WANGEL 0354 Terracotta coloured loamy fine sand with angular pebble cover in places and low outcrop
WANGEL 1096 Red-brown gravelly silty loam and cobbles and pebbles~ and shallow outcorps - igneous
WANGEL 1142 Brown silty loam (clayey?) with angular gravel~ pebbles and cobbles; with a bloom of calcium carbonate on the surface and occasional calcrete

Common Species: (Name - % of Sites, Range of Cover)

Indigofera monophylla (grey leaflet form) - 100%, <1% to 5-10%
Triodia wiseana - 100%, 10-25% to 33-50%
Corymbia hamersleyana - 62%, <1% to <1%

200 Floristic Group Level, Unit: 4,

Average Number of Species / Site: 17
Sites from: WANGEL - 7
Sites in Habitats: scs - 2 sms - 1 smr - 1 sls - 1 dns - 1 scr - 1
Portion of Dendrogram: (Area and Site on left)



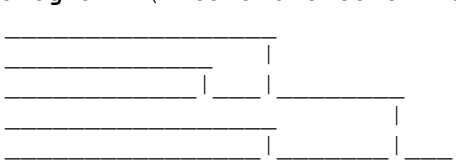
Vegetation Description:
WANGEL 0065 Scattered low trees of Corymbia hamersleyana over Acacia holosericea open scrub over Triodia wiseana open hummock grassland
WANGEL 1086 Scattered Corymbia hamersleyana and Acacia inaequilatera low trees over Indigofera monophylla (grey leaflet form) low open shrubland over Triodia wiseana and Triodia brizoides hummock grassland
WANGEL 1108 Indigofera monophylla (grey leaflet form) low open shrubland over Triodia wiseana hummock grassland
WANGEL 1098 Scattered Acacia inaequilatera tall shrubs over Indigofera monophylla (grey leaflet form) low open heath over Triodia wiseana hummock grassland
WANGEL 1083 Scattered Acacia inaequilatera tall shrubs over scattered Indigofera monophylla low shrubs over Triodia wiseana hummock grassland
WANGEL 1111 Scattered tall Grevillea pyramidalis low trees over low scattered Corchorus laniflorus shrubs over Triodia wiseana hummock grassland
WANGEL 1095 Acacia ancistrocarpa high to open shrubland over Triodia wiseana hummock grassland

Soil:
WANGEL 0065 Sandy/gravelly brown loam~ (very pebbly surface in places)~ amongst pebbles and small cobbles
WANGEL 1086 Red-brown silty loam and gravel among flattish cobbles~ pebbles and shallow outcrops (igneous rocks)
WANGEL 1108 Red-brown boulders~ outcrops~ gravel~ pebbles~ cobbles
WANGEL 1098 Skeletal soil; shallow outcrop~ cobbles
WANGEL 1083 Red-brown loam~ quite pebbly with gravelly~ pebbly surface~ some cobbles and low outcrop. Moderate to steep slopes
WANGEL 1111 Gravelly~ pebbly~ cobbly red-brown loam
WANGEL 1095 Orange-brown (terracotta) very pebbly loam~ some (few) cobbles (large)

Common Species: (Name - % of Sites, Range of Cover)
Triodia wiseana - 100%, 25-33% to 50-70%
Indigofera monophylla (grey leaflet form) - 100%, <1% to 10-25%
Acacia inaequilatera - 71%, <1% to 1-5%
Grevillea pyramidalis - 57%, <1% to <1%
Acacia holosericea - 57%, <1% to 33-50%
Corymbia hamersleyana - 57%, <1% to 1-5%
Goodenia stobbsiana - 57%, <1% to <1%
Tribulus suberosus - 57%, <1% to <1%
Cymbopogon ambiguus - 57%, <1% to <1%
Corchorus laniflorus - 57%, <1% to <1%

200 Floristic Group Level, Unit: 5,

Average Number of Species / Site: 20
Sites from: WANGEL - 5
Sites in Habitats: sls - 3 scs - 2
Portion of Dendrogram: (Area and Site on left)



Vegetation Description:

WANGEL 0358 Scattered tall shrubs of Acacia aff._inaequilatera (MET 15 011) over Triodia wiseana hummock grassland
WANGEL 0452 Scattered tall shrubs of Acacia pyrifolia (bark not corky) over Triodia wiseana hummock grassland
WANGEL 1086A Scattered Acacia inaequilatera shrubs over Triodia wiseana open hummock grassland
WANGEL 0460 Corymbia hamersleyana low open woodland over scattered shrubs of Acacia pyrifolia (bark not corky) over Triodia wiseana hummock grassland
WANGEL 1121 Corymbia hamersleyana low open woodland over scattered Acacia pyrifolia (corky form) trees over Triodia wiseana open hummock grassland

Soil:

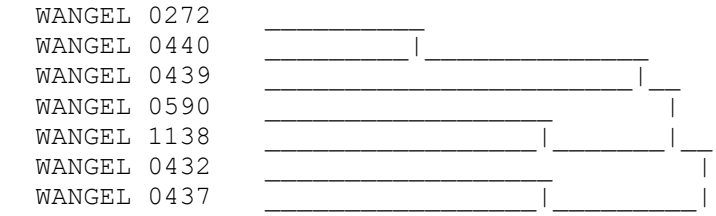
WANGEL 0358 Red-brown loamy fine sand with gravelly~ pebbly surface
WANGEL 0452 Orange-brown loam~ pebbly with pebbly~ shingly surface
WANGEL 1086A Red-brown silty loam (very little) and gravel among flat cobbles~ pebbles and shallow outcrops- igneous
WANGEL 0460 Gravelly/pebbly~ orange-brown loam with gravel surface
WANGEL 1121 Cobbly~ pebbly~ gravelly red-brown loam

Common Species: (Name - % of Sites, Range of Cover)

Bulbostylis barbata - 100%, <1% to <1%
Triodia wiseana - 100%, 25-33% to 50-70%
Polycarpaea holtzei - 100%, <1% to <1%
Corymbia hamersleyana - 100%, <1% to 5-10%
Dysphania rhadinostachya subsp. rhadinostachya - 80%, <1% to <1%
Hakea lorea ssp. lorea - 60%, <1% to <1%
Solanum lasiophyllum - 60%, <1% to <1%
Trachymene oleracea - 60%, <1% to <1%
Oldenlandia crouchiana - 60%, <1% to <1%
Cassia glutinosa - 60%, <1% to <1%
Acacia holosericea - 60%, <1% to <1%
Acacia bivenosa - 60%, <1% to <1%
Eriachne pulchella subsp. dominii - 60%, <1% to <1%

200 Floristic Group Level, Unit: 6,

Average Number of Species / Site: 13
Sites from: WANGEL - 7
Sites in Habitats: dns - 2 sls - 2 ss - 1 scs - 1 ps - 1
Portion of Dendrogram: (Area and Site on left)



Vegetation Description:

WANGEL 0272 Scattered shrubs of Acacia pyrifolia (bark not corky) over Triodia wiseana hummock grassland
WANGEL 0440 Acacia pyrifolia (bark not corky) high open shrubland over Triodia wiseana hummock grassland
WANGEL 0439 Corymbia hamersleyana low open woodland over Triodia wiseana hummock grassland
WANGEL 0590 Scattered tall shrubs of Acacia pyrifolia (bark not corky) over Triodia wiseana hummock grassland
WANGEL 1138 Corymbia hamersleyana~ Hakea suberea and Grevillea pyramidalis open woodland over Triodia wiseana hummock grassland
WANGEL 0432 Acacia pyrifolia (bark not corky) high shrubland over Indigofera rugosa shrubland over Triodia wiseana hummock grassland
WANGEL 0437 Acacia pyrifolia (bark not corky) high open shrubland over Indigofera monophylla (grey leaflet form) and Indigofera rugosa low open shrubland over Triodia wiseana closed hummock grassland

Soil:

WANGEL 0272 Cobbly/pebbly orange-brown loam
WANGEL 0440 Orange-brown to red-brown gravelly~ pebbly loam with coarse pebble~ cobble surface
WANGEL 0439 Pebbly/cobbly brown loam (part of slopes quite rocky). Surface cobbly (large) pebbly
WANGEL 0590 Very pebbly
WANGEL 1138 Sparse red-brown silty loam among cobbles and pebbles
WANGEL 0432 Cobbly red-brown clay/loam
WANGEL 0437 Pebbly~ gravelly red-brown loam

Common Species: (Name - % of Sites, Range of Cover)

Triodia wiseana - 100%, 33-50% to 50-70%
Acacia pyrifolia (bark not corky) - 71%, <1% to 10-25%
Terminalia canescens - 71%, <1% to <1%
Hakea lorea ssp. lorea - 57%, <1% to 1-5%

200 Floristic Group Level, Unit: 7,

Average Number of Species / Site: 14
Sites from: WANGEL - 2
Sites in Habitats: ps - 1 dns - 1
Portion of Dendrogram: (Area and Site on left)
WANGEL 0013 _____
WANGEL 1159 _____|___

Vegetation Description:
WANGEL 0013 High open shrubland of Acacia inaequilatera over Triodia wiseana~ Triodia pungens hummock grassland
WANGEL 1159 Scattered Acacia ancistrocarpa and Acacia pyrifolia (corky form) tall shrubs over Triodia angusta and Triodia wiseana open to very open hummock grassland

Soil:
WANGEL 0013 Red-brown sandy loam with pebbles and small cobbles. (Surface patchy-some places quite pebbly)
WANGEL 1159 Dull orange-brown sandy loam~ pebbly in places

Common Species: (Name - % of Sites, Range of Cover)
Corchorus laniflorus - 100%, <1% to 1-5%
Triodia wiseana - 100%, 1-5% to 10-25%
Mollugo molluginis - 100%, <1% to <1%
Acacia inaequilatera - 100%, 1-5% to 1-5%
Solanum horridum - 100%, <1% to <1%
Ptilotus astrolasius - 100%, <1% to <1%

200 Floristic Group Level, Unit: 8,

Average Number of Species / Site: 11
Sites from: WANGEL - 4
Sites in Habitats: ps - 2 dns - 1 scs - 1
Portion of Dendrogram: (Area and Site on left)
WANGEL 0128 _____
WANGEL 0131 _____|_____
WANGEL 1102 _____ |
WANGEL 1140 _____|_____|_

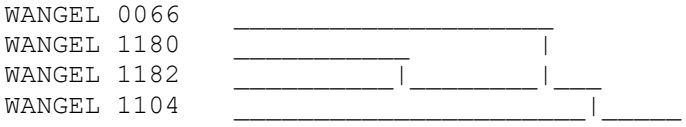
Vegetation Description:
WANGEL 0128 Corchorus lanifolius~ Indigofera monophylla (grey leaflet form) low shrubland over Triodia wiseana open hummock grassland
WANGEL 0131 Low scattered shrubs of Triumfetta appendiculata over Triodia pungens very open hummock grassland
WANGEL 1102 Triodia wiseana open hummock grassland
WANGEL 1140 Triodia wiseana open hummock grassland

Soil:
WANGEL 0128 Cobbly pebbly red-brown loam~ some boulders
WANGEL 0131 Cobbly/pebbly/gravelly and some brown sand
WANGEL 1102 Little soil~ angular pebbles~ cobbles and shallow outcrops
WANGEL 1140 Red-brown silty loam covered with large gravel and pebbles and with cobbles~ rocks~ small boulders and shallow outcrops

Common Species: (Name - % of Sites, Range of Cover)
Trichodesma zeylanicum - 100%, <1% to <1%
Mollugo molluginis - 100%, <1% to <1%
Triodia wiseana - 100%, 10-25% to 25-33%

200 Floristic Group Level, Unit: 9,

Average Number of Species / Site: 15
Sites from: WANGEL - 4
Sites in Habitats: scs - 3 dns - 1
Portion of Dendrogram: (Area and Site on left)



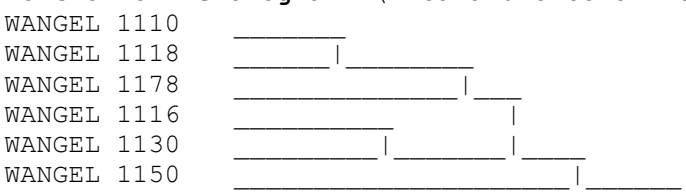
Vegetation Description:
WANGEL 0066 Goodenia stobbsiana~ Corchorus lanifolius low open shrubland over Triodia wiseana open hummock grassland
WANGEL 1180 Acacia maitlandii high shrubland over Triodia wiseana open hummock grassland
WANGEL 1182 Acacia ancistrocarpa open scrub over Triodia wiseana hummock grassland
WANGEL 1104 Scattered Corymbia hamersleyana low trees over scattered Cajanus cinereus shrubs over Triodia wiseana hummock grassland

Soil:
WANGEL 0066 Red-brown loam amongst pebbles and cobbles
WANGEL 1180 Red-brown loam among angular cobbles and pebbles
WANGEL 1182 Skeletal
WANGEL 1104 Skeletal; angular cobbles (igneous)~ pebbles~ boulders~ outcropping rock (shallow)

Common Species: (Name - % of Sites, Range of Cover)
Corchorus laniflorus - 100%, <1% to <1%
Mollugo molluginis - 100%, <1% to <1%
Triodia wiseana - 100%, 10-25% to 33-50%
Corymbia hamersleyana - 100%, <1% to <1%
Tribulus suberosus - 100%, <1% to <1%
Ptilotus calostachyus - 75%, <1% to <1%
Goodenia stobbsiana - 75%, <1% to 5-10%
Bonamia media var. villosa - 75%, <1% to <1%
Polycarpaea longiflora - 75%, <1% to <1%

200 Floristic Group Level, Unit: 10,

Average Number of Species / Site: 7
Sites from: WANGEL - 6
Sites in Habitats: smr - 2 scr - 2 scs - 2
Portion of Dendrogram: (Area and Site on left)



Vegetation Description:
WANGEL 1110 Triodia wiseana open hummock grassland
WANGEL 1118 Corchorus laniflorus and Euphorbia wheeleri low open shrubland over Triodia wiseana open hummock grassland
WANGEL 1178 Triodia wiseana open hummock grassland
WANGEL 1116 Cajanus cinereus low open shrubland over Triodia wiseana open hummock grassland
WANGEL 1130 Grevillea wickhamii and Cajanus cinereus open shrubland over

Triodia wiseana open hummock grassland
WANGEL 1150 Acacia maitlandii open shrubland over Triodia wiseana open hummock grassland

Soil:
WANGEL 1110 Skeletal red-brown with angular cobbles (mainly) and boulders and pebbles
WANGEL 1118 Red-brown sparse loam; mainly cobbles:
WANGEL 1178 Red-brown silty (clayey?) loam among and under large pebbles and cobbles~ with larger rocks and outcrops
WANGEL 1116 Red-brown~ angular boulders~ rocks and cobbles
WANGEL 1130 Red-brown loam in pockets and cracks~ outcrops~ boulders~ rocks and cobbles
WANGEL 1150 Red-brown~ and grey-brown~ sandy loam among and under angular large gravel with rocks~ cobbles~ pebbles and outcrops

Common Species: (Name - % of Sites, Range of Cover)
Triodia wiseana - 100%, 10-25% to 25-33%
Tribulus suberosus - 100%, <1% to <1%
Corchorus laniflorus - 83%, <1% to 5-10%
Cajanus cinereus - 83%, <1% to 10-25%

200 Floristic Group Level, Unit: 11,

Average Number of Species / Site: 11
Sites from: WANGEL - 6
Sites in Habitats: smr - 2 scr - 2 sls - 1 scs - 1
Portion of Dendrogram: (Area and Site on left)
WANGEL 0331 _____
WANGEL 1172 _____|_____
WANGEL 1124 _____ |
WANGEL 1132 _____|____ |
WANGEL 1164 _____|_____|
WANGEL 1174 _____||_

Vegetation Description:
WANGEL 0331 Scattered tall shrubs of Acacia acradenia over Triodia wiseana hummock grassland
WANGEL 1172 Scattered Gossypium australe tall shrubs over scattered Indigofera monophylla (grey leaflet form) low shrubs over Triodia wiseana open hummock grassland
WANGEL 1124 Triodia wiseana open hummock grassland
WANGEL 1132 Triodia wiseana open hummock grassland
WANGEL 1164 Scattered Acacia trachycarpa shrubs over Triodia wiseana open hummock grassland
WANGEL 1174 Triodia wiseana open hummock grassland

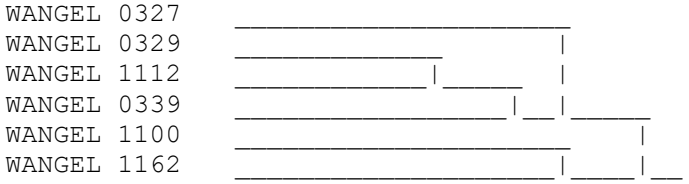
Soil:
WANGEL 0331 Red-brown loam~ corase pebble surface~ flat outcrop
WANGEL 1172 Red-brown silty loam and angular gravel and pebbles among stones~ boulders and outcrops
WANGEL 1124 Red-brown and grey outcrop~ small boulders~ rocks and cobbles; few pebbles~ gravel or soil
WANGEL 1132 Red-brown loam among~ mainly~ cobbles and pebbles
WANGEL 1164 Red-brown silty loam and~ mainly~ cobbles
WANGEL 1174 Brown loam~ white~ brown~ grey...mixed gravel~ pebbles~ cobbles~ rocks and some boulders and shallow outcrops

Common Species: (Name - % of Sites, Range of Cover)
Triodia wiseana - 100%, 10-25% to 33-50%

Indigofera monophylla (grey leaflet form) - 67%, <1% to 1-5%
Corchorus laniflorus - 67%, <1% to <1%
Polycarpaea longiflora - 67%, <1% to <1%
Hakea lorea ssp. lorea - 67%, <1% to <1%

200 Floristic Group Level, Unit: 12,

Average Number of Species / Site: 13
Sites from: WANGEL - 6
Sites in Habitats: scr - 2 smr - 2 dnr - 1 sms - 1
Portion of Dendrogram: (Area and Site on left)



Vegetation Description:
WANGEL 0327 Cajanus cinereus shrubland over Triodia wiseana open hummock grassland over Cymbopogon ambiguus very open tussock grassland
WANGEL 0329 Cajanus cinereus and Gossypium australe open shrubland over Triodia wiseana hummock grassland
WANGEL 1112 Scattered Cajanus cinereus low shrubs over Triodia wiseana open hummock grassland
WANGEL 0339 Low scattered shrubs of Cajanus cinereus over Triodia wiseana and Triodia brizoides hummock grassland
WANGEL 1100 Pentalepis trichodesmoides~ Cajanus cinereus open shrubland over Triodia wiseana hummock grassland
WANGEL 1162 Gossypium australe high open shrubland over Triodia wiseana hummock grassland

Soil:
WANGEL 0327 Bouldey with pebbly red-brown loam in patches
WANGEL 0329
WANGEL 1112 Red-brown skeletal soil with angular large boulders~ outcrops~ rocks and cobbles
WANGEL 0339 Very rocky with low outcrop. Red-brown loam~ pebbly~ cobbly
WANGEL 1100 Red-brown loam and gravel among angular cobbles~ pebbles and outcrops which mostly are shallow~ but also many large boulders (igneous)
WANGEL 1162 Red-brown and black boulders~ rocks and cobbles

Common Species: (Name - % of Sites, Range of Cover)
Solanum lasiophyllum - 100%, <1% to <1%
Triodia wiseana - 100%, 10-25% to 50-70%
Pentalepis trichodesmoides - 83%, <1% to 5-10%
Cajanus cinereus - 83%, 1-5% to 10-25%
Cymbopogon ambiguus - 67%, <1% to 1-5%
Euphorbia wheeleri - 67%, <1% to <1%

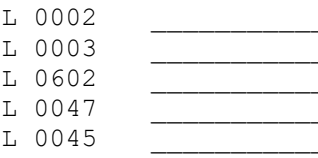
50 Group Level, Member: 2,

Average Number of Species / Site: 19
Sites from: WANGEL - 40
Sites in Habitats: sls - 14 dn - 6 sl - 6 sms - 3 smr - 3 scr - 2 scs - 2 slr - 1 s - 1

Common Species: (Name - % of Sites, Range of Cover)
Triodia wiseana - 100%, 1-5% to 50-70%
Cleome viscosa - 55%, <1% to 25-33%
Corchorus sp.Millstream(A.S.George 3488) - 55%, <1% to 10-25%
Acacia arida - 52%, <1% to 1-5%
Euphorbia australis (West Angelas site 1103) - 50%, <1% to <1%
Mollugo molluginis - 50%, <1% to <1%
Cassia notabilis - 45%, <1% to <1%
Bulbostylis barbata - 42%, <1% to <1%

200 Floristic Group Level, Unit: 13,

Average Number of Species / Site: 18
Sites from: WANGEL - 5
Sites in Habitats: dn - 4 sms - 1
Portion of Dendrogram: (Area and Site on left)



Vegetation Description:
WANGEL 0002 Acacia ancistrocarpa~ Corchorus lanifolius shrubland over Indigofera rugosa low open shrubland over Triodia wiseana hummock grassland
WANGEL 0003 Acacia ancistrocarpa open scrub over Triodia wiseana hummock grassland
WANGEL 0602 Scattered tall shrubs of Acacia ancistrocarpa over Triodia wiseana hummock grassland
WANGEL 0047 Scattered tall shrubs of Acacia ancistrocarpa over scattered low shrubs of Cassia glutinosa over Triodia wiseana hummock grassland
WANGEL 0045 Scattered low trees of Corymbia hamersleyana over Acacia ancistrocarpa~ Cassia glutinosa high shrubland over Triodia wiseana~ Triodia angusta~ Triodia pungens hummock grassland

Soil:
WANGEL 0002 Soft~ sandy loam~ with very few pebbles
WANGEL 0003 Brown (orangy) loam~ some red brown. In other parts soil red-brown
WANGEL 0602 Orange-brown gravelly~ pebbly loam with pebble~ gravel~ small cobbles (shingly) surface
WANGEL 0047
WANGEL 0045

Common Species: (Name - % of Sites, Range of Cover)
Triodia wiseana - 100%, 33-50% to 50-70%
Acacia ancistrocarpa - 100%, 1-5% to 33-50%
Crotalaria medicaginea - 80%, <1% to <1%
Mollugo molluginis - 80%, <1% to <1%
Cassia notabilis - 80%, <1% to <1%
Paraneurachne muelleri - 60%, <1% to <1%
Indigofera rugosa - 60%, <1% to 1-5%
Solanum diversiflorum - 60%, <1% to <1%

Solanum horridum - 60%, <1% to <1%
Corchorus laniflorus - 60%, <1% to 5-10%
Cassia glutinosa - 60%, <1% to 1-5%
Corymbia hamersleyana - 60%, <1% to 1-5%

200 Floristic Group Level, Unit: 14,

Average Number of Species / Site: 21
Sites from: WANGEL - 2
Sites in Habitats: sl - 1 sls - 1
Portion of Dendrogram: (Area and Site on left)
WANGEL 0007 _____
WANGEL 0008 _____|_____

Vegetation Description:
WANGEL 0007 Scattered shrubs of Acacia aff._inaequilatera (MET 15 011) and Acacia ancistrocarpa over Triodia wiseana hummock grassland
WANGEL 0008 Triodia wiseana hummock grassland

Soil:
WANGEL 0007 Red-brown pebbly loam. Some bare rocky areas
WANGEL 0008 Red- brown loam~ some pebbles~ less pebbly at lower end

Common Species: (Name - % of Sites, Range of Cover)
Terminalia canescens - 100%, <1% to <1%
Eriachne pulchella subsp. dominii - 100%, <1% to <1%
Acacia ancistrocarpa - 100%, <1% to <1%
Triodia wiseana - 100%, 50-70% to 50-70%
Corchorus laniflorus - 100%, <1% to <1%
Cajanus cinereus - 100%, <1% to <1%
Polygala aff. isingii - 100%, <1% to <1%

200 Floristic Group Level, Unit: 15,

Average Number of Species / Site: 26
Sites from: WANGEL - 3
Sites in Habitats: sls - 2 sl - 1
Portion of Dendrogram: (Area and Site on left)
WANGEL 0004 _____
WANGEL 0005 _____|_____
WANGEL 0025 _____|_

Vegetation Description:
WANGEL 0004 Scattered shrubs of Acacia ancistrocarpa and Corchorus lanifolius over Triodia wiseana hummock grassland
WANGEL 0005 Scattered shrubs of Acacia aff._inaequilatera (MET 15 011) and Acacia ancistrocarpa over Triodia wiseana hummock grassland
WANGEL 0025 Acacia inaequilatera high open shrubland over Corchorus lanifolius low open shrubland over Triodia wiseana very open hummock grassland with open annual herbland of Cleome viscosa

Soil:
WANGEL 0004
WANGEL 0005 Pebbly red-brown loam amongst boulders of acidic volcanics
WANGEL 0025 Pebbly surface with red-brown sandy loam. Burnt about 18 months before recorded

Common Species: (Name - % of Sites, Range of Cover)
Solanum diversiflorum - 100%, <1% to <1%
Tribulus platypterus - 100%, <1% to <1%

Cleome viscosa - 100%, <1% to 25-33%
Dysphania rhadinostachya subsp. rhadinostachya - 100%, <1% to <1%
Polycarpaea longiflora (pale form) - 100%, <1% to <1%
Corchorus laniflorus - 100%, <1% to 1-5%
Indigofera rugosa - 100%, <1% to <1%
Ptilotus astrolasius - 100%, <1% to <1%
Ptilotus auriculifolius - 100%, <1% to <1%
Triodia wiseana - 100%, 1-5% to 10-25%
Ptilotus aervoides - 67%, <1% to <1%
Euphorbia australis (West Angelas site 1103) - 67%, <1% to <1%
Acacia aff. inaequilatera (MET 15 011) - 67%, <1% to <1%
Oldenlandia sp. Mt Montagu (MET 15 027) - 67%, <1% to <1%
Acacia ancistrocarpa - 67%, <1% to 1-5%
Cassia notabilis - 67%, <1% to <1%
Tribulus hirsutus - 67%, <1% to <1%
Oldenlandia crouchiana - 67%, <1% to <1%
Bonamia media var. villosa - 67%, <1% to <1%

200 Floristic Group Level, Unit: 16,

Average Number of Species / Site: 40
Sites from: WANGEL - 1
Sites in Habitats: sls - 1
Portion of Dendrogram: (Area and Site on left)
WANGEL 0033 _____

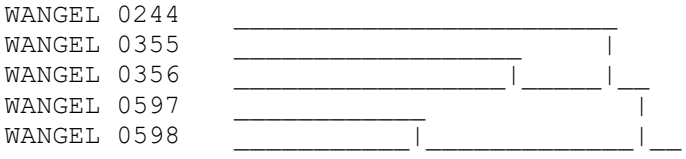
Vegetation Description:
WANGEL 0033 Scattered low trees of Corymbia hamersleyana over scattered tall shrubs of Acacia ancistrocarpa~ Acacia inaequilatera over Triodia wiseana hummock grassland

Soil:
WANGEL 0033 Cobbly/pebbly surface with red-brown loam amongst the pebbles and cobbles. An outcrop of volcanic rock (basic?) in cliff~ some calcretisation also (above outcrop). Has patches of crackling clay forming a mosaic

Common Species: (Name - % of Sites, Range of Cover)
Swainsona stenodonta - 100%, <1% to <1%
Boerhavia coccinea - 100%, <1% to <1%
Ptilotus aervoides - 100%, <1% to <1%
Sporobolus australasicus - 100%, <1% to <1%
Oldenlandia sp. Mt Montagu (MET 15 027) - 100%, <1% to <1%
Polygala aff. isingii - 100%, <1% to <1%
Triodia wiseana - 100%, 33-50% to 33-50%
Mollugo molluginis - 100%, <1% to <1%
Euphorbia australis (West Angelas site 1103) - 100%, <1% to <1%
Cleome viscosa - 100%, <1% to <1%
Acacia ancistrocarpa - 100%, <1% to <1%
Acacia coriacea - 100%, <1% to <1%
Acacia inaequilatera - 100%, <1% to <1%
Acacia trachycarpa - 100%, <1% to <1%
Boerhavia gardneri - 100%, <1% to <1%
Cassia notabilis - 100%, <1% to <1%
Cassia luerssenii - 100%, <1% to <1%
Ptilotus astrolasius - 100%, <1% to <1%
Cassia glutinosa - 100%, <1% to <1%
Trachymene oleracea - 100%, <1% to <1%

200 Floristic Group Level, Unit: 17,

Average Number of Species / Site: 14
Sites from: WANGEL - 5
Sites in Habitats: sls - 3 s - 1 sl - 1
Portion of Dendrogram: (Area and Site on left)



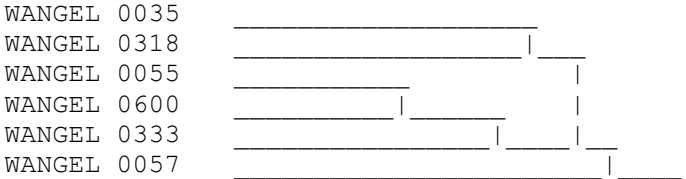
Vegetation Description:
WANGEL 0244 Scattered tall shrubs of Acacia pyrifolia (bark not corky) over Triodia wiseana open hummock grassland
WANGEL 0355 Scattered tall shrubs of Acacia aff._inaequilatera (MET 15 011) and Hakea suberea over Triodia wiseana open hummock grassland
WANGEL 0356 Scattered low trees of Corymbia hamersleyana over Triodia wiseana open hummock grassland
WANGEL 0597 Triodia wiseana hummock grassland
WANGEL 0598 Triodia wiseana hummock grassland

Soil:
WANGEL 0244 Pebbly loamy sand~ orange-brown. Some low outcrop
WANGEL 0355 Terracotta coloured loamy fine sand with pebble surface and some low outcrop
WANGEL 0356 = site 355~ but sandy surface in places
WANGEL 0597 Orange-brown clayey loam~ some gravel
WANGEL 0598 Orange-brown loam with cobbly surface~ some pebbles and outcrop

Common Species: (Name - % of Sites, Range of Cover)
Triodia wiseana - 100%, 10-25% to 33-50%
Cleome viscosa - 100%, <1% to <1%
Cassia notabilis - 80%, <1% to <1%
Polycarpaea corymbosa var. corymbosa - 80%, <1% to <1%
Bulbostylis barbata - 80%, <1% to <1%
Euphorbia australis (West Angelas site 1103) - 60%, <1% to <1%

200 Floristic Group Level, Unit: 18,

Average Number of Species / Site: 13
Sites from: WANGEL - 6
Sites in Habitats: sls - 2 dnr - 1 dns - 1 scs - 1 sms - 1
Portion of Dendrogram: (Area and Site on left)



Vegetation Description:
WANGEL 0035 Acacia arida high shrubland over scattered low shrubs of Corchorus sp._Millstream over Triodia wiseana hummock grassland
WANGEL 0318 Acacia arida shrubland over Triodia wiseana open hummock grassland
WANGEL 0055 Acacia arida shrubland over Triodia wiseana hummock grassland
WANGEL 0600 Acacia arida shrubland over Triodia wiseana open hummock grassland
WANGEL 0333 Acacia arida open heath over Triodia wiseana hummock grassland
WANGEL 0057 Scattered shrubs of Acacia arida over Corchorus sp._Millstream low shrubland over hummock grassland of Triodia wiseana

Soil:
WANGEL 0035 Red-brow loam~ very rocky~ very pebbly surface
WANGEL 0318 Dull orange-brown pebbly/gravelly loam some shingly pieces and flat outcrop
WANGEL 0055 Some gravelly brown loam (sandy). Some sheet outcrop (basic volcanics)
WANGEL 0600 Dull orange-brown cobbly~ gravelly~ pebbly loam~ with pebbly~ cobbly surface. Has a lot of outcrop
WANGEL 0333 Light brown gravelly pebbly sandy loam
WANGEL 0057 Orange-brown loam amongst pebbles and cobbles

Common Species: (Name - % of Sites, Range of Cover)
Acacia arida - 100%, 1-5% to 33-50%
Triodia wiseana - 100%, 10-25% to 33-50%
Polycarpaea longiflora (pale form) - 67%, <1% to <1%
Bulbostylis barbata - 67%, <1% to <1%

200 Floristic Group Level, Unit: 19,

Average Number of Species / Site: 25
Sites from: WANGEL - 2
Sites in Habitats: sls - 1 sl - 1
Portion of Dendrogram: (Area and Site on left)
WANGEL 0050 _____
WANGEL 0079 _____|_____

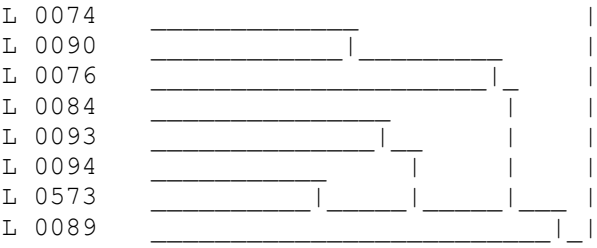
Vegetation Description:
WANGEL 0050 Scattered shrubs of Acacia arida over Triodia wiseana~ Triodia pungens hummock grassland
WANGEL 0079 Triodia wiseana~ Triodia pungens hummock grassland

Soil:
WANGEL 0050 Brown sandy loam~ with silty surface (flooded when creek rises)
WANGEL 0079 Pebbly~ red-brown loam

Common Species: (Name - % of Sites, Range of Cover)
Gossypium australe (Burrup Peninsula form) - 100%, <1% to <1%
Triodia wiseana - 100%, 33-50% to 33-50%
Corchorus sp.Millstream(A.S.George 3488) - 100%, <1% to <1%
Euphorbia australis (West Angelas site 1103) - 100%, <1% to <1%
Triodia epactia - 100%, 1-5% to 1-5%
Phyllanthus maderaspatensis var. angustifolius - 100%, <1% to <1%
Mollugo molluginis - 100%, <1% to <1%
Crotalaria medicaginea - 100%, <1% to <1%
Indigofera colutea - 100%, <1% to <1%
Euphorbia coghlanii - 100%, <1% to <1%
Gomphrena cunninghamii - 100%, <1% to <1%

200 Floristic Group Level, Unit: 20,

Average Number of Species / Site: 20
Sites from: WANGEL - 8
Sites in Habitats: sls - 3 dn - 2 scs - 1 sl - 1 scr - 1
Portion of Dendrogram: (Area and Site on left)



Vegetation Description:

WANGEL 0074 Hummock grassland of Triodia wiseana with scattered shrubs of Acacia arida over low scattered shrubs of Corchorus sp._Millstream
WANGEL 0090 Scattered tall shrubs of Acacia pyrifolia (slender form) over Acacia arida open shrubland over low scattered shrubs of Tephrosia rosea var. clementii over Triodia wiseana hummock grassland
WANGEL 0076 Open shrubland of Acacia pyrifolia (slender form) over Triodia wiseana hummock grassland
WANGEL 0084 Acacia arida~ Acacia pyrifolia (slender form) shrubland over Corchorus sp._Millstream low scattered shrubs oover Triodia wiseana hummock grassland
WANGEL 0093 Acacia arida open shrubland over Triodia wiseana open hummock grassland
WANGEL 0094 Acacia arida open shrubland over low scattered shrubs of Corchorus sp._Millstream over Triodia wiseana open hummock grassland
WANGEL 0573 Acacia arida open shrubland over Triodia wiseana open hummock grassland
WANGEL 0089 Hummock grassland of Triodia wiseana with low open shrubland of Acacia arida and Acacia pyrifolia (slender form)

Soil:

WANGEL 0074 Cobbly/pebbly surface (less on slopes into gap) with red-brown loam (gravelly)
WANGEL 0090 Orange-brown (dark brown when wet) sandy loam. On sand banks cracking clay
WANGEL 0076 Red-brown loam. Wet
WANGEL 0084 In a 'swale' gravelly~ kahki coloured brown sand
WANGEL 0093 Gravelly surface over orange-brown clay/loam. Some large bare patches (sub cracking clays)
WANGEL 0094 Red-brown pebbly loam
WANGEL 0573 Light brown loamy fine sand~ some gravel and shingly near outcrop
WANGEL 0089 Orange-brown sandy loam. Cracking in places. Pebbly at upper edge

Common Species: (Name - % of Sites, Range of Cover)

Triodia wiseana - 100%, 10-25% to 50-70%
Acacia arida - 100%, <1% to 1-5%
Corchorus sp.Millstream(A.S.George 3488) - 100%, <1% to <1%
Hibiscus aff. platychlamys (MET 15 067) - 88%, <1% to <1%
Indigastrum parviflorum - 75%, <1% to <1%
Acacia pyrifolia (slender form) - 75%, <1% to 5-10%
Oldenlandia sp. Mt Montagu (MET 15 027) - 75%, <1% to <1%
Crotalaria medicaginea - 75%, <1% to <1%
Cleome viscosa - 62%, <1% to <1%
Euphorbia australis (West Angelas site 1103) - 62%, <1% to <1%

Bulbostylis barbata - 62%, <1% to <1%

200 Floristic Group Level, Unit: 21,

Average Number of Species / Site: 10
Sites from: WANGEL - 3
Sites in Habitats: scr - 1 slr - 1 smr - 1
Portion of Dendrogram: (Area and Site on left)
WANGEL 0056 _____
WANGEL 0060 _____|_____
WANGEL 1131 _____|__

Vegetation Description:
WANGEL 0056 Low scattered shrubs of Corchorus sp._Millstream over Triodia wiseana hummock grassland
WANGEL 0060 Cullen lachnostachys~ Corchorus sp._Millstream low open shrubland over Triodia wiseana open hummock grassland with scattered Euphorbia wheeleri
WANGEL 1131 Low scattered Corchorus lasiocarpus var. lasiocarpus (MS) shrubs over Triodia wiseana very open hummock grassland

Soil:
WANGEL 0056 Orange-brown loam amongst pebbles~ cobbles and outcrop of volcanic rock (basic)
WANGEL 0060 Red-brown gravelly loam amongst cobbles
WANGEL 1131 Orange-brown gravelly sandy loam~ very cobbly and some low outcrop

Common Species: (Name - % of Sites, Range of Cover)
Boerhavia gardneri - 100%, <1% to <1%
Triodia wiseana - 100%, 5-10% to 25-33%
Bonamia media var. villosa - 100%, <1% to <1%
Oldenlandia sp. Mt Montagu (MET 15 027) - 67%, <1% to <1%
Sida cardiophylla - 67%, <1% to <1%
Corchorus sp.Millstream(A.S.George 3488) - 67%, <1% to <1%

200 Floristic Group Level, Unit: 22,

Average Number of Species / Site: 16
Sites from: WANGEL - 2
Sites in Habitats: sl - 1 smr - 1
Portion of Dendrogram: (Area and Site on left)
WANGEL 0335 _____
WANGEL 1148 _____|__

Vegetation Description:
WANGEL 0335 Tephrosia sp._B Kimberley Flora low open shrubland over Triodia wiseana open hummock grassland
WANGEL 1148 Scattered Acacia trachycarpa~ Acacia arida and Acacia bivenosa shrubs over Triodia wiseana open hummock grassland

Soil:
WANGEL 0335 Gravelly light brown loam with scattered flat cobbles and pebbles
WANGEL 1148 1

Common Species: (Name - % of Sites, Range of Cover)
Boerhavia gardneri - 100%, <1% to <1%
Triodia wiseana - 100%, 10-25% to 10-25%
Indigofera linifolia - 100%, <1% to <1%
Acacia arida - 100%, <1% to <1%
Grevillea pyramidalis - 100%, <1% to <1%

200 Floristic Group Level, Unit: 23,

Average Number of Species / Site: 25
Sites from: WANGEL - 3
Sites in Habitats: smr - 1 sms - 1 sls - 1
Portion of Dendrogram: (Area and Site on left)
WANGEL 0058 _____
WANGEL 0073 _____|_____
WANGEL 0059 _____|____

Vegetation Description:
WANGEL 0058 Acacia arida open shrubland over Indigofera rugosa low open shrubland over Triodia wiseana hummock grassland
WANGEL 0073 Tephrosia rosea var. clementii~ Acacia arida~ Corchorus sp._Millstream low shrubland over Triodia wiseana open hummock grassland
WANGEL 0059 Scattered shrubs of Cassia venusta over Indigofera rugosa low open shrubland over Triodia wiseana hummock grassland with scattered Euphorbia wheeleri

Soil:
WANGEL 0058 Surface pebbly/cobbly (dolerite ? volcanic pebbles/cobbles)~ over pebbly/cobbly red-brown loam
WANGEL 0073 Red-brown pebbly/gravelly loam. Small area of alluvial dirt
WANGEL 0059 Orange-red-brown loam amongst pebbles and boulders

Common Species: (Name - % of Sites, Range of Cover)
Euphorbia wheeleri - 100%, <1% to 1-5%
Triodia wiseana - 100%, 10-25% to 25-33%
Polycarpaea longiflora (pale form) - 100%, <1% to <1%
Boerhavia gardneri - 100%, <1% to <1%
Trichodesma zeylanicum - 100%, <1% to <1%
Ptilotus incanus var. elongatus - 100%, <1% to <1%
Ptilotus fusiformis var. fusiformis - 100%, <1% to <1%
Bonamia media var. villosa - 100%, <1% to <1%
Acacia arida - 67%, <1% to <1%
Solanum horridum - 67%, <1% to <1%
Cleome viscosa - 67%, <1% to <1%
Cullen lachnostachys - 67%, <1% to <1%
Pentalepis trichodesmoides - 67%, <1% to <1%
Oldenlandia sp. Mt Montagu (MET 15 027) - 67%, <1% to <1%
Indigofera rugosa - 67%, 1-5% to 1-5%
Crotalaria novae-hollandiae subsp. novae-hollandiae - 67%, <1% to <1%
Solanum phlomoides - 67%, <1% to <1%
Tephrosia supina - 67%, <1% to <1%
Corchorus sp.Millstream(A.S.George 3488) - 67%, <1% to 1-5%

50 Group Level, Member: 3,

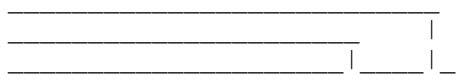
Average Number of Species / Site: 17
Sites from: WANGEL - 3
Sites in Habitats: scs - 3

Common Species: (Name - % of Sites, Range of Cover)
Cassia notabilis - 100%, <1% to <1%
Acacia inaequilatera - 100%, <1% to 1-5%
Triodia angusta (Burrup Form) - 100%, 1-5% to 25-33%
Trianthema triquetra - 100%, <1% to <1%
Swainsona stenodonta - 100%, <1% to <1%
Cleome viscosa - 67%, <1% to <1%
Hakea lorea ssp. lorea - 67%, <1% to <1%

Trianthema aff. kimberleyi (MET 15 060) - 67%, <1% to <1%
Indigofera colutea - 67%, <1% to <1%
Corymbia hamersleyana - 67%, <1% to 1-5%
Triodia wiseana - 67%, 5-10% to 10-25%

200 Floristic Group Level, Unit: 24,

Average Number of Species / Site: 17
Sites from: WANGEL - 3
Sites in Habitats: scs - 3
Portion of Dendrogram: (Area and Site on left)



Vegetation Description:
WANGEL 0027 Scattered low trees of Corymbia hamersleyana over Acacia inaequilatera high open shrubland over Triodia wiseana~ Triodia angusta open hummock grassland
WANGEL 0039 Scattered tall shrubs of Acacia xiphophylla over low scattered shrubs of Acacia inaequilatera over Triodia wiseana~ Triodia angusta hummock grassland
WANGEL 0041 Acacia inaequilatera~ Acacia pyrifolia (bark not corky) high open shrubland over Triodia angusta open hummock grassland

Soil:
WANGEL 0027 Red-brown loam~ with thin sandy surface~ pebbly in places
WANGEL 0039 Fine red-brown loamy sand~ pebbly in places
WANGEL 0041 Mosaic of the bare areas generally have densely packed pebbly surfaces over light red-brown clay /loam and the areas with Triodia angusta have pebbly red-brown loam~ with a pebbly surface

Common Species: (Name - % of Sites, Range of Cover)
Trianthema triquetra - 100%, <1% to <1%
Cassia notabilis - 100%, <1% to <1%
Swainsona stenodonta - 100%, <1% to <1%
Acacia inaequilatera - 100%, <1% to 1-5%
Triodia angusta (Burrup Form) - 100%, 1-5% to 25-33%
Triodia wiseana - 67%, 5-10% to 10-25%
Hakea lorea ssp. lorea - 67%, <1% to <1%
Cleome viscosa - 67%, <1% to <1%
Corymbia hamersleyana - 67%, <1% to 1-5%
Trianthema aff. kimberleyi (MET 15 060) - 67%, <1% to <1%
Indigofera colutea - 67%, <1% to <1%

50 Group Level, Member: 4,

Average Number of Species / Site: 19
Sites from: WANGEL - 4
Sites in Habitats: scs - 1 sc - 1 ds - 1 dnr - 1

Common Species: (Name - % of Sites, Range of Cover)
Corymbia hamersleyana - 100%, <1% to <1%
Cassia glutinosa - 100%, <1% to <1%
Cassia oligophylla - 75%, <1% to <1%
Triodia wiseana - 75%, <1% to 25-33%
Jasminum didymum subsp. lineare - 75%, <1% to <1%
Hakea lorea ssp. lorea - 50%, <1% to <1%
Eucalyptus leucophloia - 50%, <1% to <1%
Eriachne mucronata - 50%, <1% to 5-10%
Cymbopogon ambiguus - 50%, <1% to <1%
Cassia luerssenii - 50%, <1% to <1%
Gossypium australe (Burrup Peninsula form) - 50%, <1% to <1%

200 Floristic Group Level, Unit: 25,

Average Number of Species / Site: 10
Sites from: WANGEL - 2
Sites in Habitats: ds - 1 sc - 1
Portion of Dendrogram: (Area and Site on left)
WANGEL 0343 _____
WANGEL 1174A _____|_

Vegetation Description:
WANGEL 0343 Scattered low trees of Eucalyptus leucophloia over Triodia wiseana hummock grassland
WANGEL 1174A Corymbia hamersleyana low woodland

Soil:
WANGEL 0343 = site 342
WANGEL 1174A Red-brown alluvial clay-loam

Common Species: (Name - % of Sites, Range of Cover)
Corymbia hamersleyana - 100%, <1% to <1%
Cassia oligophylla - 100%, <1% to <1%
Cassia glutinosa - 100%, <1% to <1%
Hakea lorea ssp. lorea - 100%, <1% to <1%

200 Floristic Group Level, Unit: 26,

Average Number of Species / Site: 33
Sites from: WANGEL - 1
Sites in Habitats: scs - 1
Portion of Dendrogram: (Area and Site on left)
WANGEL 0698 _____

Vegetation Description:
WANGEL 0698 Corymbia hamersleyana scattered low trees over Acacia pyrifolia (bark not corky) scattered tall shrubs over Triodia wiseana hummock grassland

Soil:
WANGEL 0698 Pebbly cobbly brown loam with pebbles~ cobble surface

Common Species: (Name - % of Sites, Range of Cover)

Cassia glutinosa - 100%, <1% to <1%
Sida sp. 'rugose' - 100%, <1% to <1%
Tripogon loliiformis var. (2) - 100%, <1% to <1%
Rhynchosia cf. minima - 100%, <1% to <1%
Polygala aff. isingii - 100%, <1% to <1%
Acacia bivenosa (wispy form) - 100%, <1% to <1%
Cymbopogon ambiguus - 100%, <1% to <1%
Themeda triandra - 100%, <1% to <1%
Triodia wiseana - 100%, 25-33% to 25-33%
Hakea chordophylla - 100%, <1% to <1%
Crotalaria novae-hollandiae subsp. novae-hollandiae - 100%, <1% to <1%
Acacia maitlandii - 100%, <1% to <1%
Cheilanthes lasiophylla - 100%, <1% to <1%
Paraneurachne muelleri - 100%, <1% to <1%
Gossypium australe (Burrup Peninsula form) - 100%, <1% to <1%
Ptilotus rotundifolius - 100%, <1% to <1%
Pterocaulon serrulatum - 100%, <1% to <1%
Olearia stuartii - 100%, <1% to <1%
Goodenia triodiophila - 100%, <1% to <1%
Cassia luerssenii - 100%, <1% to <1%

200 Floristic Group Level, Unit: 27,

Average Number of Species / Site: 23
Sites from: WANGEL - 1
Sites in Habitats: dnr - 1
Portion of Dendrogram: (Area and Site on left)
WANGEL 1188 _____

Vegetation Description:
WANGEL 1188 Scattered Eucalyptus leucophloia and Corymbia hamersleyana low trees over Triodia wiseana hummock grassland and Eriachne mucronata perennial tussock grassland

Soil:
WANGEL 1188 Red-brown angular cobbles~ pebbles and outcrops

Common Species: (Name - % of Sites, Range of Cover)
Capparis lasiantha - 100%, <1% to <1%
Eriachne mucronata - 100%, 5-10% to 5-10%
Triodia wiseana - 100%, 10-25% to 10-25%
Ptilotus obovatus - 100%, <1% to <1%
Polycarpaea holtzei - 100%, <1% to <1%
Acacia pruinocarpa - 100%, <1% to <1%
Acacia tenuissima - 100%, <1% to <1%
Cassia glutinosa - 100%, <1% to <1%
Euphorbia boophthona - 100%, <1% to <1%
Dodonaea pachyneura - 100%, <1% to <1%
Cymbopogon ambiguus - 100%, <1% to <1%
Cassia luerssenii - 100%, <1% to <1%
Sida fibulifera - 100%, <1% to <1%
Themeda aff. triandra - 100%, <1% to <1%
Gossypium robinsonii - 100%, <1% to <1%
Rulingia kempeana - 100%, <1% to <1%
Eucalyptus leucophloia - 100%, <1% to <1%
Porana commixta - 100%, <1% to <1%
Lobelia heterophylla - 100%, <1% to <1%
Jasminum didymum subsp. lineare - 100%, <1% to <1%

50 Group Level, Member: 5,

Average Number of Species / Site: 13
Sites from: WANGEL - 5
Sites in Habitats: scs - 3 dn - 2

Common Species: (Name - % of Sites, Range of Cover)
Triodia wiseana - 100%, <1% to <1%
Fimbristylis dichotoma - 80%, <1% to <1%
Oldenlandia sp. Mt Montagu (MET 15 027) - 60%, <1% to <1%
Bulbostylis barbata - 60%, <1% to <1%
Corchorus sp.Millstream(A.S.George 3488) - 60%, <1% to 1-5%
Cleome viscosa - 60%, <1% to <1%

200 Floristic Group Level, Unit: 28,

Average Number of Species / Site: 11
Sites from: WANGEL - 2
Sites in Habitats: scs - 2
Portion of Dendrogram: (Area and Site on left)
WANGEL 0028 _____
WANGEL 0599 _____|_____

Vegetation Description:
WANGEL 0028 Scattered shrubs of Corchorus sp._Millstream over Triodia wiseana hummock grassland
WANGEL 0599 Scattered tall shrubs of Grevillea pyramidalis over Acacia arida open shrubland over Triodia wiseana hummock grassland

Soil:
WANGEL 0028 Red-brown pebbly/gravelly loam
WANGEL 0599 Orange-brown (terracotta) coloured loam~ very pebbly between boulders and outcrop

Common Species: (Name - % of Sites, Range of Cover)
Fimbristylis dichotoma - 100%, <1% to <1%
Bulbostylis barbata - 100%, <1% to <1%
Acacia inaequilatera - 100%, <1% to <1%
Corchorus sp.Millstream(A.S.George 3488) - 100%, <1% to 1-5%
Triodia wiseana - 100%, <1% to <1%

200 Floristic Group Level, Unit: 29,

Average Number of Species / Site: 15
Sites from: WANGEL - 1
Sites in Habitats: scs - 1
Portion of Dendrogram: (Area and Site on left)
WANGEL 0568 _____

Vegetation Description:
WANGEL 0568 Acacia arida open shrubland over low scattered shrubs of Corchorus sp._Millstream over Triodia wiseana hummock grassland

Soil:
WANGEL 0568 Orange-brown gravelly loam. Surface gravelly with scattered pebbles

Common Species: (Name - % of Sites, Range of Cover)
Cassia glutinosa - 100%, <1% to <1%
Acacia arida - 100%, 5-10% to 5-10%

Euphorbia australis (West Angelas site 1103) - 100%, <1% to <1%
Aristida contorta - 100%, <1% to <1%
Eragrostis leptocarpa - 100%, <1% to <1%
Sporobolus australasicus - 100%, <1% to <1%
Triodia wiseana - 100%, <1% to <1%
Cleome viscosa - 100%, <1% to <1%
Indigofera linifolia - 100%, <1% to <1%
Corchorus sp.Millstream(A.S.George 3488) - 100%, 1-5% to 1-5%
Enneapogon caerulescens var. caerulescens - 100%, <1% to <1%
Eriachne pulchella subsp. dominii - 100%, <1% to <1%
Bonamia media var. villosa - 100%, <1% to <1%
Boerhavia coccinea - 100%, <1% to <1%
Fimbristylis dichotoma - 100%, <1% to <1%

200 Floristic Group Level, Unit: 30,

Average Number of Species / Site: 14
Sites from: WANGEL - 1
Sites in Habitats: dn - 1
Portion of Dendrogram: (Area and Site on left)
WANGEL 0136 _____

Vegetation Description:
WANGEL 0136 Scattered hummock grassland of Triodia wiseana over Stemodia grossa very open herbland

Soil:
WANGEL 0136 Light brown clayey sand (loamy)~ quite wet

Common Species: (Name - % of Sites, Range of Cover)
Cyperus squarrosus - 100%, <1% to <1%
Indigastrum parviflorum - 100%, <1% to <1%
Oldenlandia sp. Mt Montagu (MET 15 027) - 100%, <1% to <1%
Triodia wiseana - 100%, <1% to <1%
Eragrostis tenellula - 100%, <1% to <1%
Ammannia auriculata - 100%, <1% to <1%
Melaleuca glomerata - 100%, <1% to <1%
Ludwigia perennis - 100%, <1% to <1%
Stemodia grossa - 100%, <1% to <1%
Pluchea rubelliflora - 100%, <1% to <1%
Goodenia lamprosperma - 100%, <1% to <1%
Ammannia baccifera - 100%, <1% to <1%
Tephrosia rosea var. clementii - 100%, <1% to <1%
Fimbristylis littoralis - 100%, <1% to <1%

200 Floristic Group Level, Unit: 31,

Average Number of Species / Site: 15
Sites from: WANGEL - 1
Sites in Habitats: dn - 1
Portion of Dendrogram: (Area and Site on left)
WANGEL 0137 _____

Vegetation Description:
WANGEL 0137 Heliotropium cunninghamii low open shrubland over scattered hummock grass of Triodia wiseana

Soil:
WANGEL 0137

Common Species: (Name - % of Sites, Range of Cover)
Cyperus squarrosus - 100%, <1% to <1%
Heliotropium cunninghamii - 100%, 5-10% to 5-10%
Oldenlandia sp. Mt Montagu (MET 15 027) - 100%, <1% to <1%
Gomphrena cunninghamii - 100%, <1% to <1%
Eragrostis sp. Mt Montagu (MET 15 246) - 100%, <1% to <1%
Bulbostylis barbata - 100%, <1% to <1%
Fimbristylis dichotoma - 100%, <1% to <1%
Indigofera linifolia - 100%, <1% to <1%
Stemodia grossa - 100%, <1% to <1%
Ptilotus gomphrenoides var. gomphrenoides - 100%, <1% to <1%
Corchorus laniflorus - 100%, <1% to <1%
Indigastrum parviflorum - 100%, <1% to <1%
Crotalaria medicaginea - 100%, <1% to <1%
Cleome viscosa - 100%, <1% to <1%
Triodia wiseana - 100%, <1% to <1%

50 Group Level, Member: 6,

Average Number of Species / Site: 18
Sites from: WANGEL - 6 WHICRE - 1
Sites in Habitats: sls - 3 scs - 2 sl - 1 sms - 1

Common Species: (Name - % of Sites, Range of Cover)
Corchorus laniflorus - 86%, <1% to <1%
Triodia wiseana - 86%, <1% to <1%
Hakea lorea ssp. lorea - 57%, <1% to <1%
Boerhavia gardneri - 57%, <1% to <1%
Indigofera colutea - 43%, <1% to <1%
Corymbia hamersleyana - 43%, <1% to <1%
Crotalaria medicaginea - 43%, <1% to <1%
Mollugo molluginis - 43%, <1% to <1%
Grevillea pyramidalis - 43%, <1% to <1%
Cassia glutinosa - 43%, <1% to <1%
Tephrosia supina - 43%, <1% to <1%
Ptilotus astrolasius - 43%, <1% to <1%
Bulbostylis barbata - 43%, <1% to <1%

200 Floristic Group Level, Unit: 32,

Average Number of Species / Site: 23
Sites from: WANGEL - 1
Sites in Habitats: sl - 1
Portion of Dendrogram: (Area and Site on left)
WANGEL 0092 _____

Vegetation Description:
WANGEL 0092 Scattered tall shrubs of Acacia pyrifolia (slender form) over Corchorus sp._Millstream low open shrubland

Soil:
WANGEL 0092 Red-brown loam~ some coarse sand on surface. Cracking slightly in places

Common Species: (Name - % of Sites, Range of Cover)
Alysicarpus rugosus - 100%, <1% to <1%
Crotalaria medicaginea - 100%, <1% to <1%
Cassia notabilis - 100%, <1% to <1%
Grevillea pyramidalis - 100%, <1% to <1%
Bulbostylis barbata - 100%, <1% to <1%

Acacia pyrifolia (slender form) - 100%, <1% to <1%
Goodenia sp. (site 92) - 100%, <1% to <1%
Rhynchosia cf. minima - 100%, <1% to <1%
Indigofera colutea - 100%, <1% to <1%
Hakea lorea ssp. lorea - 100%, <1% to <1%
Goodenia muelleriana - 100%, <1% to <1%
Trianthema aff. kimberleyi (MET 15 060) - 100%, <1% to <1%
Ptilotus astrolasius - 100%, <1% to <1%
Corchorus sp.Millstream(A.S.George 3488) - 100%, 1-5% to 1-5%
Corymbia hamersleyana - 100%, <1% to <1%
Goodenia microptera - 100%, <1% to <1%
Citrullus lanatus - 100%, <1% to <1%
Terminalia canescens - 100%, <1% to <1%
Tephrosia supina - 100%, <1% to <1%
Bonamia media var. villosa - 100%, <1% to <1%

200 Floristic Group Level, Unit: 33,

Average Number of Species / Site: 17
Sites from: WANGEL - 2
Sites in Habitats: sls - 2
Portion of Dendrogram: (Area and Site on left)
WANGEL 0130 _____
WANGEL 0134 _____|__

Vegetation Description:
WANGEL 0130 Scattered tall shrubs of Acacia aff._inaequilatera (MET 15 011)~ Hakea suberea over Triodia wiseana very open hummock grassland
WANGEL 0134 Scattered shrubs of Grevillea pyramidalis over Triodia wiseana open hummock grassland

Soil:
WANGEL 0130 Red-brown loam with gravelly surface~ some flat pebbles
WANGEL 0134 Red-brown loam with pebbly surface

Common Species: (Name - % of Sites, Range of Cover)
Acacia aff. inaequilatera (MET 15 011) - 100%, <1% to <1%
Hakea lorea ssp. lorea - 100%, <1% to <1%
Tephrosia supina - 100%, <1% to <1%
Ptilotus astrolasius - 100%, <1% to <1%
Triodia wiseana - 100%, <1% to <1%
Corchorus laniflorus - 100%, <1% to <1%
Mollugo molluginis - 100%, <1% to <1%

200 Floristic Group Level, Unit: 34,

Average Number of Species / Site: 15
Sites from: WANGEL - 2
Sites in Habitats: scs - 1 sms - 1
Portion of Dendrogram: (Area and Site on left)
WANGEL 0433 _____
WANGEL 0435 _____|__

Vegetation Description:
WANGEL 0433 Acacia pyrifolia (bark not corky) high open shrubland over Triodia wiseana hummock grassland
WANGEL 0435 Scattered tall shrubs of Acacia pyrifolia (bark not corky) over Triodia wiseana hummock grassland

Soil:

WANGEL 0433 Gravelly~ pebbly red-brown clay~ loam with gravel~ pebble surface. Some cobbles and other parts pebbly/cobbly
WANGEL 0435 Red-brown gravelly loam~ gravel and some pebble surfaces

Common Species: (Name - % of Sites, Range of Cover)
Triodia wiseana - 100%, <1% to <1%
Corchorus laniflorus - 100%, <1% to <1%
Corymbia hamersleyana - 100%, <1% to <1%
Acacia pyrifolia (bark not corky) - 100%, <1% to 1-5%
Boerhavia gardneri - 100%, <1% to <1%
Crotalaria medicaginea - 100%, <1% to <1%

200 Floristic Group Level, Unit: 35,

Average Number of Species / Site: 20
Sites from: WANGEL - 1
Sites in Habitats: sls - 1
Portion of Dendrogram: (Area and Site on left)
WANGEL 1135 _____

Vegetation Description:
WANGEL 1135 Triodia wiseana hummock grassland

Soil:
WANGEL 1135 Light brown loamy fine sand. Clayey in small patches. Where not near flowline gravelly~ pebbly loam

Common Species: (Name - % of Sites, Range of Cover)
Euphorbia australis (West Angelas site 1103) - 100%, <1% to <1%
Boerhavia gardneri - 100%, <1% to <1%
Portulaca oleracea - 100%, <1% to <1%
Salsola kali - 100%, <1% to <1%
Ptilotus axillaris - 100%, <1% to <1%
Sporobolus australasicus - 100%, <1% to <1%
Eragrostis dielsii - 100%, <1% to <1%
Mollugo molluginis - 100%, <1% to <1%
Hibiscus aff. platychlamys (MET 15 067) - 100%, <1% to <1%
Corchorus laniflorus - 100%, <1% to <1%
Triodia wiseana - 100%, <1% to <1%
Trianthema triquetra - 100%, <1% to <1%
Sida echinocarpa - 100%, <1% to <1%
Euphorbia coghlanii - 100%, <1% to <1%
Indigofera rugosa - 100%, <1% to <1%
Indigofera colutea - 100%, <1% to <1%
Cassia notabilis - 100%, <1% to <1%
Acacia bivenosa - 100%, <1% to <1%
Cleome viscosa - 100%, <1% to <1%
Triodia epactia - 100%, <1% to <1%

200 Floristic Group Level, Unit: 36,

Average Number of Species / Site: 19
Sites from: WHICRE - 1
Sites in Habitats: scs - 1
Portion of Dendrogram: (Area and Site on left)
WHICRE W149 _____

Vegetation Description:
WHICRE W149 Scattered shrubs (1-2 m, <2%) Acacia inaequilatera/Senna glutinosa over Triodia hummock grassland (30-50%) of mixed Triodia epactia (very resinous) and Triodia sp (sharp, hairy), and 2% herbs. Acacia inaequilatera, Senna glutinosa scattered shrubs over T

Soil:
WHICRE W149 Red-brown fine loam with dense small pebble and stoney mantle. Pebbles and stones 1-5 cm diameter, mostly stones(?).

Common Species: (Name - % of Sites, Range of Cover)
Corchorus laniflorus - 100%, <1% to <1%
Amaranthus interruptus - 100%, <1% to <1%
Triodia wiseana - 100%, <1% to <1%
Sporobolus australasicus - 100%, <1% to <1%
Paspalidium clementii - 100%, <1% to <1%
Iseilema dolichotrichum - 100%, to
Euphorbia sp. (site 1163) - 100%, <1% to <1%
Rhynchosia cf. minima - 100%, <1% to <1%
Crotalaria medicaginea (Burrup form; B65-11) - 100%, <1% to <1%
Polycarpaea holtzei - 100%, <1% to <1%
Triumfetta clementii - 100%, <1% to <1%
Bulbostylis barbata - 100%, <1% to <1%
Triodia epactia - 100%, <1% to <1%
Dysphania rhadinostachya subsp. rhadinostachya - 100%, <1% to <1%
Indigofera colutea - 100%, <1% to <1%
Cassia glutinosa - 100%, <1% to <1%
Acacia inaequilatera - 100%, <1% to <1%
Euphorbia sp. (B170-4) - 100%, <1% to <1%
Gomphrena cunninghamii - 100%, <1% to <1%

50 Group Level, Member: 7,

Average Number of Species / Site: 18
Sites from: WANGEL - 6 WHICRE - 1
Sites in Habitats: scr - 2 sls - 1 dns - 1 ps - 1 rp - 1 scs - 1

Common Species: (Name - % of Sites, Range of Cover)
Corchorus laniflorus - 100%, <1% to <1%
Triodia wiseana - 100%, <1% to >70%
Cymbopogon ambiguus - 100%, <1% to 5-10%
Indigofera monophylla (grey leaflet form) - 71%, <1% to 10-25%
Gomphrena cunninghamii - 71%, <1% to <1%
Triumfetta clementii - 71%, <1% to <1%
Boerhavia gardneri - 43%, <1% to <1%
Trichodesma zeylanicum - 43%, <1% to <1%
Indigofera linifolia - 43%, <1% to <1%
Tephrosia sp.Cathedral Gorge(F.H.Mollemans 2420) - 43%, <1% to <1%
Oldenlandia sp. Mt Montagu (MET 15 027) - 43%, <1% to <1%
Fimbristylis rara - 43%, <1% to 5-10%

200 Floristic Group Level, Unit: 37,

Average Number of Species / Site: 16
Sites from: WANGEL - 3
Sites in Habitats: ps - 1 scs - 1 sls - 1
Portion of Dendrogram: (Area and Site on left)
WANGEL 1081 _____
WANGEL 1160 _____|_____
WANGEL 1158 _____|____

Vegetation Description:
WANGEL 1081 Acacia inaequilatera high open shrubland over Triodia wiseana open hummock grassland with scattered Fimbrystylis rara
WANGEL 1160 Triodia wiseana open hummock grassland over Fimbristylis rara very open sedgeland
WANGEL 1158 Aristida contorta open perennial tussock grassland and Fimbristylis rara open sedgeland/herbfield

Soil:
WANGEL 1081 Red-brown loam~ very pebbly~ cobbly with scattered cobbles and large pebbles on surface
WANGEL 1160 Red-brown silty loam and gravel with stones~ small boulders and small shallow outcrops
WANGEL 1158 Red-brown silty loam~ gravel and pebbles~ with cobbles~ rocks and small shallow outcrops

Common Species: (Name - % of Sites, Range of Cover)
Indigofera linifolia - 100%, <1% to <1%
Corchorus laniflorus - 100%, <1% to <1%
Cymbopogon ambiguus - 100%, <1% to <1%
Tephrosia sp.Cathedral Gorge(F.H.Mollemans 2420) - 100%, <1% to <1%
Triumfetta clementii - 100%, <1% to <1%
Triodia wiseana - 100%, <1% to 33-50%
Oldenlandia sp. Mt Montagu (MET 15 027) - 67%, <1% to <1%
Indigofera monophylla (grey leaflet form) - 67%, <1% to <1%
Aristida contorta - 67%, <1% to <1%
Synaptantha tillaeacea var. tillaeacea - 67%, <1% to <1%
Fimbristylis rara - 67%, 1-5% to 5-10%
Boerhavia gardneri - 67%, <1% to <1%

Gomphrena cunninghamii - 67%, <1% to <1%
Fimbristylis dichotoma - 67%, <1% to 10-25%

200 Floristic Group Level, Unit: 38,

Average Number of Species / Site: 28
Sites from: WHICRE - 1 WANGEL - 1
Sites in Habitats: dns - 1 rp - 1
Portion of Dendrogram: (Area and Site on left)
WANGEL 1082 _____
WHICRE W147 _____|___

Vegetation Description:
WANGEL 1082 Corymbia hamersleyana low trees over Indigofera monophylla (grey leaflet form) low shrubland over Triodia wiseana closed hummock grassland and Cymbopogon ambiguus perennial tussock grassland
WHICRE W147 Gossypium australe (Whim Creek Form) Grevillea pyrimidalis scattered shrubs over Indigofera monophylla (Burrup Form), Corchorus laniflorus low scatered shrubs over Triodia wiseana closed hummock grassland with Rhynchosia cf. minima open lianes.

Soil:
WANGEL 1082 Red-brown loam with cobbles~ pebbles and gravel~ which are in the matrix and on the surface
WHICRE W147 Pink-fine-reddish fine loam.

Common Species: (Name - % of Sites, Range of Cover)
Grevillea pyramidalis - 100%, <1% to 1-5%
Phyllanthus maderaspatensis var. angustifolius - 100%, <1% to <1%
Gomphrena cunninghamii - 100%, <1% to <1%
Corchorus laniflorus - 100%, <1% to <1%
Cleome viscosa - 100%, <1% to <1%
Trichodesma zeylanicum - 100%, <1% to <1%
Triumfetta clementii - 100%, <1% to <1%
Triodia wiseana - 100%, >70% to >70%
Cymbopogon ambiguus - 100%, <1% to 5-10%

200 Floristic Group Level, Unit: 39,

Average Number of Species / Site: 13
Sites from: WANGEL - 2
Sites in Habitats: scr - 2
Portion of Dendrogram: (Area and Site on left)
WANGEL 1152 _____
WANGEL 1170 _____|_____

Vegetation Description:
WANGEL 1152 Gossypium australe high open shrubland over Triodia wiseana hummock grassland
WANGEL 1170 Triodia wiseana open to very open hummock grassland

Soil:
WANGEL 1152 Red-brown silty loam~ rocks~ cobbles and pebbles between domes
WANGEL 1170 Red-brown silty loam and angular gravel~ among~ mainly~ rocks~ cobbles and outcrops

Common Species: (Name - % of Sites, Range of Cover)
Tribulus suberosus - 100%, <1% to <1%
Cymbopogon ambiguus - 100%, <1% to <1%
Indigofera monophylla (grey leaflet form) - 100%, <1% to <1%

Gossypium australe (Burrup Peninsula form) - 100%, <1% to 5-10%
Corchorus laniflorus - 100%, <1% to <1%
Cajanus cinereus - 100%, <1% to <1%
Triodia wiseana - 100%, <1% to <1%

50 Group Level, Member: 8,

Average Number of Species / Site: 22
Sites from: WANGEL - 8
Sites in Habitats: dns - 5 dn - 2 ds - 1

Common Species: (Name - % of Sites, Range of Cover)
Acacia tumida - 100%, <1% to >70%
Indigofera monophylla (grey leaflet form) - 88%, <1% to 1-5%
Corymbia hamersleyana - 88%, <1% to 1-5%
Triodia wiseana - 75%, <1% to 25-33%
Phyllanthus maderaspatensis var. angustifolius - 62%, <1% to <1%
Jacquemontia pannosa - 62%, <1% to <1%
Triodia epactia - 50%, <1% to 5-10%
Cassia glutinosa - 50%, <1% to <1%
Cassia notabilis - 50%, <1% to <1%
Terminalia canescens - 50%, <1% to 1-5%
Trichodesma zeylanicum - 50%, <1% to <1%
Cajanus cinereus - 50%, <1% to 10-25%
Solanum lasiophyllum - 50%, <1% to <1%

200 Floristic Group Level, Unit: 40,

Average Number of Species / Site: 20
Sites from: WANGEL - 3
Sites in Habitats: dn - 2 dns - 1
Portion of Dendrogram: (Area and Site on left)
WANGEL 0359 _____
WANGEL 0454 _____|____
WANGEL 1149 _____|___

Vegetation Description:
WANGEL 0359 Corymbia hamersleyana low open woodland over Acacia tumida closed heath over Triodia pungens very open hummock grassland
WANGEL 0454 Acacia tumida open scrub over Tephrosia rosea var. clementii open shrubland over low scattered shrubs of Indigofera monophylla (grey leaflet form) over Triodia wiseana open hummock grassland
WANGEL 1149 Acacia tumida and Acacia trachycarpa open scrub over Triodia pungens hummock grassland

Soil:
WANGEL 0359
WANGEL 0454 Orange-brown pebbly~ gravelly~ sandy loam
WANGEL 1149 Light brown fine to coarse sand

Common Species: (Name - % of Sites, Range of Cover)
Corymbia hamersleyana - 100%, <1% to 1-5%
Indigofera monophylla (grey leaflet form) - 100%, <1% to 1-5%
Triodia epactia - 100%, <1% to 5-10%
Cassia notabilis - 100%, <1% to <1%
Acacia tumida - 100%, 33-50% to >70%
Corchorus sp.Millstream(A.S.George 3488) - 67%, <1% to <1%
Tephrosia rosea var. clementii - 67%, <1% to 1-5%
Phyllanthus maderaspatensis var. angustifolius - 67%, <1% to <1%
Cassia glutinosa - 67%, <1% to <1%

Euphorbia coghlanii - 67%, <1% to <1%
Sida cardiophylla - 67%, <1% to <1%
Solanum diversiflorum - 67%, <1% to <1%
Polymeria ambigua - 67%, <1% to <1%

200 Floristic Group Level, Unit: 41,

Average Number of Species / Site: 28
Sites from: WANGEL - 1
Sites in Habitats: ds - 1
Portion of Dendrogram: (Area and Site on left)
WANGEL 0369 _____|

Vegetation Description:
WANGEL 0369 Scattered low trees of Corymbia hamersleyana over Acacia tumida~ Cajanus cinereus and Indigofera monophylla (grey leaflet form) low open heath over Triodia wiseana open hummock grassland

Soil:
WANGEL 0369 Cobbly -pebbly red-brown loam~ sandy surface

Common Species: (Name - % of Sites, Range of Cover)
Cassia venusta - 100%, <1% to <1%
Eriachne tenuiculmis - 100%, <1% to <1%
Grevillea wickhamii - 100%, <1% to <1%
Gomphrena cunninghamii - 100%, <1% to <1%
Cleome viscosa - 100%, <1% to <1%
Acacia monticola - 100%, <1% to <1%
Solanum lasiophyllum - 100%, <1% to <1%
Acacia tumida - 100%, 10-25% to 10-25%
Mukia aff. maderaspatana (2) (grey scabrid serrate) - 100%, <1% to <1%
Cassia notabilis - 100%, <1% to <1%
Indigofera monophylla (grey leaflet form) - 100%, 1-5% to 1-5%
Cymbopogon sp. - 100%, <1% to <1%
Trichodesma zeylanicum - 100%, <1% to <1%
Acacia maitlandii - 100%, <1% to <1%
Polymeria ambigua - 100%, <1% to <1%
Corymbia hamersleyana - 100%, 1-5% to 1-5%
Solanum diversiflorum - 100%, <1% to <1%
Triumfetta johnstonii - 100%, <1% to <1%
Ficus opposita var. indecora - 100%, <1% to <1%
Oldenlandia crouchiana - 100%, <1% to <1%

200 Floristic Group Level, Unit: 42,

Average Number of Species / Site: 22
Sites from: WANGEL - 1
Sites in Habitats: dns - 1
Portion of Dendrogram: (Area and Site on left)
WANGEL 0436 _____

Vegetation Description:
WANGEL 0436 Acacia tumida open scrub over low scattered shrubs of Indigofera monophylla (grey leaflet form) over Triodia wiseana very open hummock grassland over scattered tussock grass of Cymbopogon

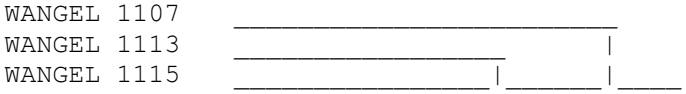
Soil:
WANGEL 0436 Gravelly red-brown loam. Banks rocky in places

Common Species: (Name - % of Sites, Range of Cover)

Bulbostylis barbata - 100%, <1% to <1%
Flueggea virosa subsp. melanthesoides - 100%, <1% to <1%
Polycarpaea longiflora (pale form) - 100%, <1% to <1%
Mukia aff. maderaspatana (2) (grey scabrid serrate) - 100%, <1% to <1%
Corchorus laniflorus - 100%, <1% to <1%
Hibiscus aff. platychlamys (MET 15 067) - 100%, <1% to <1%
Cymbopogon sp. - 100%, 1-5% to 1-5%
Gossypium australe (Burrup Peninsula form) - 100%, <1% to <1%
Triodia wiseana - 100%, 5-10% to 5-10%
Alternanthera nana - 100%, <1% to <1%
Eriachne mucronata - 100%, <1% to <1%
Indigofera monophylla (grey leaflet form) - 100%, 1-5% to 1-5%
Jacquemontia pannosa - 100%, <1% to <1%
Crotalaria medicaginea - 100%, <1% to <1%
Swainsona formosa - 100%, <1% to <1%
Crotalaria novae-hollandiae subsp. novae-hollandiae - 100%, <1% to <1%
Solanum horridum - 100%, <1% to <1%
Terminalia canescens - 100%, <1% to <1%
Malvastrum americanum - 100%, <1% to <1%
Tephrosia supina - 100%, <1% to <1%

200 Floristic Group Level, Unit: 43,

Average Number of Species / Site: 22
Sites from: WANGEL - 3
Sites in Habitats: dns - 3
Portion of Dendrogram: (Area and Site on left)



Vegetation Description:
WANGEL 1107 Acacia pyrifolia (slender form) high open shrubland with scattered low Terminalia canescens~ Corymbia hamersleyana trees over Triodia wiseana open hummock grassland
WANGEL 1113 Corymbia hamersleyana~ Acacia tumida low open woodland over scattered tall Grevillea wickhamii shrubs over Triodia wiseana open hummock grassland
WANGEL 1115 Acacia tumida low open woodland with scattered Corymbia hamersleyana trees over scattered tall Grevillea wickhamii shrubs over low scattered Stemodia grossa and Indigofera monophylla (grey leaflet form) shrubs over Triodia wiseana hummock grassland

Soil:
WANGEL 1107 Cobbly~ pebbly~ gravelly coarse brown sand
WANGEL 1113 Cobbly~ pebbly~ gravelly red-brown loam
WANGEL 1115 Soil similar but with some seepage

Common Species: (Name - % of Sites, Range of Cover)
Euphorbia wheeleri - 100%, <1% to <1%
Jacquemontia pannosa - 100%, <1% to <1%
Cymbopogon ambiguus - 100%, <1% to <1%
Corymbia hamersleyana - 100%, <1% to 1-5%
Acacia tumida - 100%, <1% to 33-50%
Triodia wiseana - 100%, <1% to 25-33%
Solanum lasiophyllum - 100%, <1% to <1%
Phyllanthus maderaspatensis var. angustifolius - 100%, <1% to <1%
Ipomoea muelleri - 67%, <1% to <1%
Grevillea wickhamii - 67%, 1-5% to 1-5%
Stemodia grossa - 67%, <1% to 1-5%

Acacia pyrifolia (slender form) - 67%, <1% to 10-25%
Acacia holosericea - 67%, <1% to <1%
Terminalia canescens - 67%, <1% to 1-5%
Cassia glutinosa - 67%, <1% to <1%
Goodenia stobbsiana - 67%, <1% to <1%
Trichodesma zeylanicum - 67%, <1% to <1%
Cajanus cinereus - 67%, <1% to <1%
Indigofera monophylla (grey leaflet form) - 67%, <1% to 1-5%

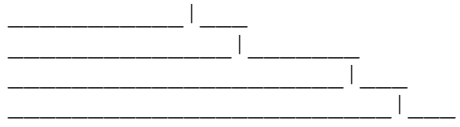
50 Group Level, Member: 9,

Average Number of Species / Site: 20
Sites from: WANGEL - 15
Sites in Habitats: dns - 5 scs - 4 ds - 2 dnr - 1 slr - 1 sms - 1 ss - 1

Common Species: (Name - % of Sites, Range of Cover)
Triodia wiseana - 87%, <1% to 50-70%
Corymbia hamersleyana - 80%, <1% to 5-10%
Cassia glutinosa - 80%, <1% to 5-10%
Sida cardiophylla - 73%, <1% to <1%
Acacia monticola - 73%, <1% to >70%
Indigofera monophylla (grey leaflet form) - 73%, <1% to 10-25%
Eucalyptus leucophloia - 67%, <1% to 33-50%
Goodenia stobbsiana - 60%, <1% to 1-5%
Cassia notabilis - 53%, <1% to <1%
Trichodesma zeylanicum - 47%, <1% to <1%
Oldenlandia crouchiana - 47%, <1% to <1%
Solanum horridum - 47%, <1% to <1%
Triumfetta johnstonii - 47%, <1% to <1%

200 Floristic Group Level, Unit: 44,

Average Number of Species / Site: 28
Sites from: WANGEL - 5
Sites in Habitats: dns - 2 scs - 2 sms - 1
Portion of Dendrogram: (Area and Site on left)



Vegetation Description:
WANGEL 0367 Scattered low trees of Corymbia hamersleyana over Indigofera monophylla (grey leaflet form) and Triumfetta johnstonii low shrubland over Triodia wiseana open hummock grassland
WANGEL 0368 Indigofera monophylla (grey leaflet form) low shrubland over Triodia wiseana open hummock grassland
WANGEL 0444 Triodia wiseana hummock grassland
WANGEL 0443 Eucalyptus leucophloia low open woodland over low scattered shrubs of Acacia bivenosa over Triodia brizoides~ Triodia wiseana hummock grassland
WANGEL 0453 Acacia pyrifolia (bark not corky) high open shrubland over Indigofera monophylla (grey leaflet form) low shrubland over Triodia wiseana open hummock grassland

Soil:
WANGEL 0367 Red-brown pebbly loam~ some outcrop and large cobbles. Some sand on surface of very bottom of flowline
WANGEL 0368 Red-brown very pebbly loam. Some outcrop. Pebble/shingle surface
WANGEL 0444 Orange-brown~ very pebbly loam with shaley/pebbly surface

WANGEL 0443 Orange-brown pebbly loam with pebbly shingly surface. Some outcrop (massive~ siliceous)
WANGEL 0453 Gravelly orange-brown loam with angular gravel/pebble surface

Common Species: (Name - % of Sites, Range of Cover)
Trichodesma zeylanicum - 100%, <1% to <1%
Oldenlandia crouchiana - 100%, <1% to <1%
Fimbristylis dichotoma - 100%, <1% to <1%
Bulbostylis barbata - 100%, <1% to <1%
Sida cardiophylla - 100%, <1% to <1%
Triodia wiseana - 100%, <1% to 25-33%
Cassia glutinosa - 80%, <1% to <1%
Triumfetta johnstonii - 80%, <1% to <1%
Acacia bivenosa - 80%, <1% to <1%
Solanum lasiophyllum - 80%, <1% to <1%
Solanum horridum - 80%, <1% to <1%
Corymbia hamersleyana - 80%, <1% to <1%
Indigofera monophylla (grey leaflet form) - 80%, <1% to 10-25%
Cassia notabilis - 80%, <1% to <1%
Hibiscus aff. coatesii (MET 15 012) - 60%, <1% to <1%
Triumfetta maconochieana - 60%, <1% to <1%
Cymbopogon sp. - 60%, <1% to <1%
Hybanthus aurantiacus - 60%, <1% to <1%
Triodia brizoides - 60%, <1% to 33-50%
Bonamia media var. villosa - 60%, <1% to <1%

200 Floristic Group Level, Unit: 45,

Average Number of Species / Site: 18
Sites from: WANGEL - 5
Sites in Habitats: scs - 2 dnr - 1 dns - 1 ds - 1
Portion of Dendrogram: (Area and Site on left)
WANGEL 0445 _____
WANGEL 0446 _____|_____
WANGEL 1092 _____|____
WANGEL 1084 _____ |
WANGEL 1090 _____|_____|_

Vegetation Description:
WANGEL 0445 Eucalyptus leucophloia low open woodland over Acacia monticola shrubland over Indigofera monophylla (grey leaflet form) low shrubland over Triodia wiseana open hummock grassland
WANGEL 0446 Scattered low trees of Eucalyptus leucophloia over Acacia monticola open scrub over Solanum lasiophyllum low open shrubland over Triodia wiseana open hummock grassland over scattered herbland of Goodenia stobbsiana
WANGEL 1092 Corymbia hamersleyana low open woodland over Acacia monticola high open shrubland over Triodia wiseana hummock grassland
WANGEL 1084 Corymbia hamersleyana~ Acacia tumida low open woodland over Triodia wiseana hummock grassland and Cymbopogon ambiguus tussock grassland
WANGEL 1090 Eucalyptus leucophloia and Acacia tumida low open forest to open woodland over Acacia monticola high shrubland over Triodia wiseana open hummock grassland and Cymbopogon ambiguus tussock grassland

Soil:
WANGEL 0445 Very pebbly orange-brown sandy loam with pebble surface~ some cobbles~ some patches with thin sandy surface
WANGEL 0446 Orange-brown pebbly loam with pebbly surface. Some outcrop
WANGEL 1092 Red-brown skeletal soil (silty loam)~ fractured outcropping~ some pebbles~ cobbles
WANGEL 1084 Red-brown pavement (igneous)~ cobbles~ pebbles

WANGEL 1090 Red-brown silty loam and~ mainly~ gravel and pebbles~ with fewer cobbles

Common Species: (Name - % of Sites, Range of Cover)
Corymbia hamersleyana - 100%, <1% to 5-10%
Goodenia stobbsiana - 100%, <1% to 1-5%
Triodia wiseana - 100%, 10-25% to 50-70%
Acacia monticola - 100%, <1% to 33-50%
Eucalyptus leucophloia - 80%, <1% to 33-50%
Cassia glutinosa - 80%, <1% to <1%
Indigofera monophylla (grey leaflet form) - 60%, <1% to 5-10%
Solanum horridum - 60%, <1% to <1%
Triumfetta maconochieana - 60%, <1% to <1%
Sida cardiophylla - 60%, <1% to <1%
Acacia tumida - 60%, <1% to 10-25%

200 Floristic Group Level, Unit: 46,

Average Number of Species / Site: 16
Sites from: WANGEL - 1
Sites in Habitats: slr - 1
Portion of Dendrogram: (Area and Site on left)
WANGEL 1088 _____

Vegetation Description:
WANGEL 1088 Eucalyptus leucophloia open woodland over Cassia glutinosa open shrubland over Triodia wiseana open hummock grassland and Cymbopogon ambiguus tussock grassland

Soil:
WANGEL 1088 Red-brown silty loam but mainly cobbles~ pebbles and shallowly outcropping boulders or pavement

Common Species: (Name - % of Sites, Range of Cover)
Hibiscus aff. platychlamys (MET 15 067) - 100%, <1% to <1%
Cassia glutinosa - 100%, 5-10% to 5-10%
Ptilotus calostachyus - 100%, <1% to <1%
Cassia luerssenii - 100%, <1% to <1%
Indigofera monophylla (grey leaflet form) - 100%, <1% to <1%
Triodia wiseana - 100%, 25-33% to 25-33%
Polycarpaea longiflora - 100%, <1% to <1%
Eucalyptus leucophloia - 100%, 5-10% to 5-10%
Trachymene oleracea - 100%, <1% to <1%
Oldenlandia crouchiana - 100%, <1% to <1%
Pterocaulon sphacelatum - 100%, <1% to <1%
Cymbopogon ambiguus - 100%, 33-50% to 33-50%
Corchorus laniflorus - 100%, <1% to <1%
Sida cardiophylla - 100%, <1% to <1%
Sida sp. 'rugose' - 100%, <1% to <1%
Brachychiton acuminatus - 100%, <1% to <1%

200 Floristic Group Level, Unit: 47,

Average Number of Species / Site: 16
Sites from: WANGEL - 3
Sites in Habitats: ss - 1 dns - 1 ds - 1
Portion of Dendrogram: (Area and Site on left)
WANGEL 0449 _____
WANGEL 0450 _____|_____
WANGEL 0451 _____|_____

Vegetation Description:
WANGEL 0449 Eucalyptus leucophloia low open woodland over Acacia monticola low open heath over Triodia pungens and Triodia wiseana open hummock grassland
WANGEL 0450 Eucalyptus leucophloia and Corymbia hamersleyana low woodland over Acacia holosericea and Acacia monticola open heath over Triodia pungens open hummock grassland
WANGEL 0451 Scattered low trees of Corymbia hamersleyana over Acacia monticola and Dampiera candicans low open heath over Triodia pungens open hummock grassland

Soil:
WANGEL 0449 Orange-brown very pebbly loam
WANGEL 0450 Orange-brown gravelly~ pebbly loam with gravel/pebble surface
WANGEL 0451 Orange-brown~ gravelly~ pebbly loam with gravelly~ pebbly (shaley) surface

Common Species: (Name - % of Sites, Range of Cover)
Triodia epactia - 100%, <1% to 10-25%
Eucalyptus leucophloia - 100%, <1% to 10-25%
Solanum diversiflorum - 100%, <1% to <1%
Cassia notabilis - 100%, <1% to <1%
Acacia monticola - 100%, 10-25% to 33-50%
Hibiscus aff. coatesii (MET 15 012) - 67%, <1% to <1%
Acacia holosericea - 67%, <1% to 25-33%
Corymbia hamersleyana - 67%, 1-5% to 1-5%
Cassia glutinosa - 67%, <1% to <1%
Indigofera monophylla (grey leaflet form) - 67%, <1% to <1%
Hibiscus sturtii var. campylochlamys - 67%, <1% to <1%
Sida sp.A Kimberley Flora(P.A.Fryxell & L.A.Craven 3900) - 67%, <1% to <1%
Goodenia stobbsiana - 67%, <1% to <1%
Triumfetta johnstonii - 67%, <1% to <1%
Sida cardiophylla - 67%, <1% to <1%

200 Floristic Group Level, Unit: 48,

Average Number of Species / Site: 12
Sites from: WANGEL - 1
Sites in Habitats: dns - 1
Portion of Dendrogram: (Area and Site on left)
WANGEL 0456 _____

Vegetation Description:
WANGEL 0456 Acacia monticola closed heath

Soil:
WANGEL 0456 Gravelly orange-brown coarse sandy loam. Some pebbles

Common Species: (Name - % of Sites, Range of Cover)
Flueggea virosa subsp. melanthesoides - 100%, <1% to <1%

Cymbopogon sp. - 100%, <1% to <1%
Indigofera monophylla (grey leaflet form) - 100%, <1% to <1%
Triodia wiseana - 100%, <1% to <1%
Grevillea wickhamii - 100%, <1% to <1%
Acacia pyrifolia - 100%, <1% to <1%
Jasminum didymum subsp. lineare - 100%, <1% to <1%
Corchorus laniflorus - 100%, <1% to <1%
Corymbia hamersleyana - 100%, <1% to <1%
Cassia glutinosa - 100%, <1% to <1%
Tephrosia rosea var. clementii - 100%, <1% to <1%
Acacia monticola - 100%, >70% to >70%

50 Group Level, Member: 10,

Average Number of Species / Site: 20
Sites from: WANGEL - 17 WHICRE - 1
Sites in Habitats: dns - 4 daps - 3 sls - 3 scr - 2 sc - 2 scs - 1 sl - 1 smr - 1 dn - 1

Common Species: (Name - % of Sites, Range of Cover)
Triodia epactia - 100%, <1% to >70%
Cleome viscosa - 56%, <1% to <1%
Corymbia hamersleyana - 50%, <1% to 1-5%
Grevillea wickhamii - 50%, <1% to 1-5%
Triodia wiseana - 44%, <1% to 10-25%

200 Floristic Group Level, Unit: 49,

Average Number of Species / Site: 15
Sites from: WANGEL - 1
Sites in Habitats: dns - 1
Portion of Dendrogram: (Area and Site on left)
WANGEL 0006 _____

Vegetation Description:
WANGEL 0006 Triodia pungens hummock grassland

Soil:
WANGEL 0006 Red-brown~ pebbly loam amongst boulders and outcrop

Common Species: (Name - % of Sites, Range of Cover)
Solanum diversiflorum - 100%, <1% to <1%
Cleome viscosa - 100%, <1% to <1%
Euphorbia wheeleri - 100%, <1% to <1%
Acacia aff. inaequilatera (MET 15 011) - 100%, <1% to <1%
Cymbopogon ambiguus - 100%, <1% to <1%
Grevillea wickhamii - 100%, <1% to <1%
Ptilotus auriculifolius - 100%, <1% to <1%
Solanum horridum - 100%, <1% to <1%
Dysphania rhadinostachya subsp. rhadinostachya - 100%, <1% to <1%
Triodia epactia - 100%, 25-33% to 25-33%
Pentalepis trichodesmoides - 100%, <1% to <1%
Corchorus laniflorus - 100%, <1% to <1%
Euphorbia aff. drummondii (MET 15 030) - 100%, <1% to <1%
Tribulus platypterus - 100%, <1% to <1%
Cajanus cinereus - 100%, <1% to <1%

200 Floristic Group Level, Unit: 50,

Average Number of Species / Site: 28

Sites from: WANGEL - 2
Sites in Habitats: daps - 2
Portion of Dendrogram: (Area and Site on left)
WANGEL 1125 _____
WANGEL 1155 _____|___

Vegetation Description:
WANGEL 1125 Acacia pyrifolia (slender form) high shrubland with scattered Grevillea wickhamii tall shrubs over Triodia pungens open hummock grassland
WANGEL 1155 Scattered Acacia trachycarpa tall shrubs over Triodia pungens open hummock grassland

Soil:
WANGEL 1125 Cobbly~ pebbly~ gravelly loamy sand. Has some sandy patches on surface
WANGEL 1155 Cobbly pebbly light brown fine sand. Surface very cobbly in places~ sandy in others

Common Species: (Name - % of Sites, Range of Cover)
Hybanthus aurantiacus - 100%, <1% to <1%
Triumfetta appendiculata (Whim Creek form) - 100%, <1% to <1%
Indigofera monophylla (grey leaflet form) - 100%, <1% to <1%
Pterocaulon sphacelatum - 100%, <1% to <1%
Acacia pyrifolia (slender form) - 100%, <1% to 10-25%
Triodia epactia - 100%, 10-25% to 33-50%
Grevillea wickhamii - 100%, <1% to <1%
Aerva javanica - 100%, <1% to <1%
Trichodesma zeylanicum - 100%, <1% to <1%
Trianthema triquetra - 100%, <1% to <1%
Euphorbia wheeleri - 100%, <1% to <1%

200 Floristic Group Level, Unit: 51,

Average Number of Species / Site: 35
Sites from: WANGEL - 2
Sites in Habitats: scr - 2
Portion of Dendrogram: (Area and Site on left)
WANGEL 0243 _____
WANGEL 1139 _____|___

Vegetation Description:
WANGEL 0243 Scattered low trees of Corymbia hamersleyana over Triodia pungens hummock grassland
WANGEL 1139 Dampiera candicans~ Corchorus laniflorus and Polymeria ambigua low open shrubland over Triodia pungens and Triodia wiseana very open hummock grassland

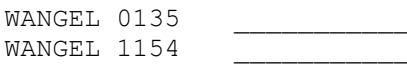
Soil:
WANGEL 0243 Very rocky with steeper slopes with boulders with cobbles between them. Rock is pale (acidic) volcanics. Mixed fine to medium grained sand
WANGEL 1139 Has outcrop of basic (? intermediate) volcanics. Pebbly loamy sand amongst cobbles and outcrop

Common Species: (Name - % of Sites, Range of Cover)
Corymbia hamersleyana - 100%, <1% to <1%
Ptilotus fusiformis var. fusiformis - 100%, <1% to <1%
Bonamia media var. villosa - 100%, <1% to <1%
Hybanthus aurantiacus - 100%, <1% to <1%
Triodia epactia - 100%, 5-10% to 25-33%
Cajanus cinereus - 100%, <1% to <1%

Mollugo molluginis - 100%, <1% to <1%
Euphorbia australis (West Angelas site 1103) - 100%, <1% to <1%
Grevillea wickhamii - 100%, <1% to <1%
Triodia wiseana - 100%, <1% to 1-5%
Eriachne mucronata - 100%, <1% to <1%
Dysphania rhadinostachya subsp. rhadinostachya - 100%, <1% to <1%
Goodenia stobbsiana - 100%, <1% to <1%
Cassia venusta - 100%, <1% to <1%

200 Floristic Group Level, Unit: 52,

Average Number of Species / Site: 11
Sites from: WANGEL - 2
Sites in Habitats: sls - 1 smr - 1
Portion of Dendrogram: (Area and Site on left)



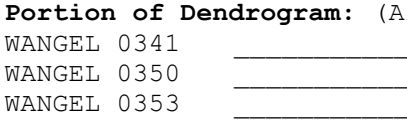
Vegetation Description:
WANGEL 0135 Tephrosia densa low open shrubland over Triodia wiseana~ Triodia pungens open hummock grassland
WANGEL 1154 Triodia pungens open hummock grassland

Soil:
WANGEL 0135 Forming gravelly soil with some red-brown loam
WANGEL 1154 Red-grey-brown loam and angular red-brown gravel among pebbles~ cobbles and rocks

Common Species: (Name - % of Sites, Range of Cover)
Tribulus suberosus - 100%, <1% to <1%
Triodia wiseana - 100%, <1% to 1-5%
Triodia epactia - 100%, 10-25% to 10-25%

200 Floristic Group Level, Unit: 53,

Average Number of Species / Site: 19
Sites from: WANGEL - 3
Sites in Habitats: dns - 3
Portion of Dendrogram: (Area and Site on left)



Vegetation Description:
WANGEL 0341 Eucalyptus leucophloia and Corymbia hamersleyana low open woodland over Triodia wiseana and Triodia pungens open hummock grassland
WANGEL 0350 Acacia monticola~ Grevillea wickhamii and Acacia tumida high open shrubland over Acacia bivenosa open shrubland over Triodia pungens hummock grassland
WANGEL 0353 Acacia tumida and Grevillea wickhamii high open shrubland over Triodia pungens hummock grassland

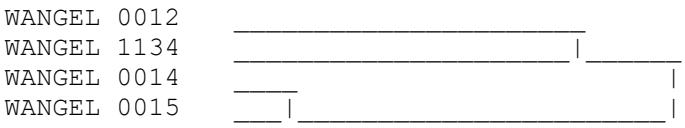
Soil:
WANGEL 0341 Orange-brown pebbly~ cobbly sandy loam
WANGEL 0350 = site 248 but more loamy
WANGEL 0353 Pebbly/cobbly/gravelly coarse sand amongst boulders

Common Species: (Name - % of Sites, Range of Cover)
Corymbia hamersleyana - 100%, <1% to 1-5%
Acacia bivenosa - 100%, <1% to 10-25%

Triodia epactia - 100%, 10-25% to 50-70%
Grevillea wickhamii - 100%, <1% to 1-5%
Indigofera monophylla (grey leaflet form) - 100%, <1% to <1%
Goodenia stobbsiana - 67%, <1% to <1%
Triumfetta maconochieana - 67%, <1% to <1%
Ehretia saligna var. saligna - 67%, <1% to <1%
Polymeria ambigua - 67%, <1% to <1%
Euphorbia coghlanii - 67%, <1% to <1%
Acacia tumida - 67%, <1% to 5-10%
Pterocaulon sphaeranthoides - 67%, <1% to <1%
Ammannia baccifera - 67%, <1% to <1%
Cleome viscosa - 67%, <1% to <1%

200 Floristic Group Level, Unit: 54,

Average Number of Species / Site: 18
Sites from: WANGEL - 4
Sites in Habitats: sl - 1 scs - 1 daps - 1 sls - 1
Portion of Dendrogram: (Area and Site on left)



Vegetation Description:
WANGEL 0012 Scattered Corymbia hamersleyana low trees over Acacia pyrifolia (bark not corky) and Cassia oligophylla low open shrubland over Triodia pungens and Triodia wiseana hummock grassland
WANGEL 1134 Scattered Grevillea pyramidalis low trees over Triodia pungens hummock grassland
WANGEL 0014 Scattered shrubs of Acacia inaequilatera over Triodia pungens hummock grassland
WANGEL 0015 Triodia pungens hummock grassland

Soil:
WANGEL 0012 Red- brown sandy loam
WANGEL 1134 Medium brown silty sand over river stones
WANGEL 0014 Red-brown sandy loam with cobbles at exposed edge of site
WANGEL 0015 Red-brown loamy sand with cobbles and pebbles

Common Species: (Name - % of Sites, Range of Cover)
Triodia epactia - 100%, 33-50% to >70%
Boerhavia gardneri - 100%, <1% to <1%
Triumfetta appendiculata (Whim Creek form) - 75%, <1% to <1%
Corchorus laniflorus - 75%, <1% to <1%
Sida aff. echinocarpa (MET 15 350) - 75%, <1% to <1%
Bonamia media var. villosa - 75%, <1% to <1%
Gossypium australe (Burrup Peninsula form) - 75%, <1% to <1%

200 Floristic Group Level, Unit: 55,

Average Number of Species / Site: 15
Sites from: WANGEL - 1
Sites in Habitats: sc - 1
Portion of Dendrogram: (Area and Site on left)
WANGEL 0240 _____

Vegetation Description:
WANGEL 0240 Triodia pungens hummock grassland

Soil:
WANGEL 0240 Light orange-brown silty sand

Common Species: (Name - % of Sites, Range of Cover)
Eragrostis aff. eriopoda - 100%, <1% to <1%
Bulbostylis barbata - 100%, <1% to <1%
Trianthema pilosa - 100%, <1% to <1%
Acacia pyrifolia (bark not corky) - 100%, <1% to <1%
Eragrostis setifolia - 100%, <1% to <1%
Triodia epactia - 100%, 33-50% to 33-50%
Triodia longiceps - 100%, <1% to <1%
Acacia trachycarpa - 100%, <1% to <1%
Acacia pyrifolia - 100%, <1% to <1%
Cassia notabilis - 100%, <1% to <1%
Tephrosia supina - 100%, <1% to <1%
Polycarpaea corymbosa var. corymbosa - 100%, <1% to <1%
Corymbia hamersleyana - 100%, <1% to <1%
Solanum diversiflorum - 100%, <1% to <1%
Yakirra australiensis - 100%, <1% to <1%

200 Floristic Group Level, Unit: 56,

Average Number of Species / Site: 12
Sites from: WHICRE - 1
Sites in Habitats: sls - 1
Portion of Dendrogram: (Area and Site on left)
WHICRE W138 _____

Vegetation Description:
WHICRE W138 Acacia? orthocarpa open shrubland over Triodia epactia(Burrup Form) hummock grassland over Indigofera monophylla, Indigastrum parviflorum with Rhynchosia cf. minima lianes.

Soil:
WHICRE W138 Fine red clay with aggregrates and gravel.

Common Species: (Name - % of Sites, Range of Cover)
Cleome viscosa - 100%, <1% to <1%
Corchorus laniflorus - 100%, <1% to <1%
Triodia wiseana - 100%, 1-5% to 1-5%
Bonamia media var. villosa - 100%, <1% to <1%
Indigastrum parviflorum (Whim Creek form; W138-3) - 100%, <1% to <1%
Indigofera monophylla (Burrup form) - 100%, 1-5% to 1-5%
Gossypium australe (Whim Creek form) - 100%, 5-10% to 5-10%
Gomphrena cunninghamii - 100%, <1% to <1%
Acacia orthocarpa - 100%, 1-5% to 1-5%
Sida cardiophylla - 100%, <1% to <1%
Triodia epactia - 100%, 50-70% to 50-70%

Rhynchosia cf. minima - 100%, 33-50% to 33-50%

200 Floristic Group Level, Unit: 57,

Average Number of Species / Site: 21
Sites from: WANGEL - 2
Sites in Habitats: dn - 1 sc - 1
Portion of Dendrogram: (Area and Site on left)
WANGEL 0042 _____
WANGEL 0043 _____|_____

Vegetation Description:
WANGEL 0042 Scattered shrubs of Cassia oligophylla over Triodia wiseana~ Triodia pungens hummock grassland
WANGEL 0043 Acacia inaequilatera~ Grevillea wickhamii~ Hakea suberea~ Cullen stipulaceum high open shrubland over Cullen lachnostachys open shrubland to shrubland over Triodia pungens hummock grassland

Soil:
WANGEL 0042 Red-brown loamy sand
WANGEL 0043 Red-brown sand~ few pebbles

Common Species: (Name - % of Sites, Range of Cover)
Ptilotus astrolasius - 100%, <1% to <1%
Solanum horridum - 100%, <1% to <1%
Cullen stipulaceum - 100%, <1% to <1%
Polycarpaea corymbosa var. corymbosa - 100%, <1% to <1%
Streptoglossa adscendens - 100%, <1% to <1%
Cassia notabilis - 100%, <1% to <1%
Polymeria ambigua - 100%, <1% to <1%
Triodia epactia - 100%, <1% to 33-50%
Hybanthus aurantiacus - 100%, <1% to <1%
Cullen lachnostachys - 100%, <1% to 10-25%
Trichodesma zeylanicum - 100%, <1% to <1%

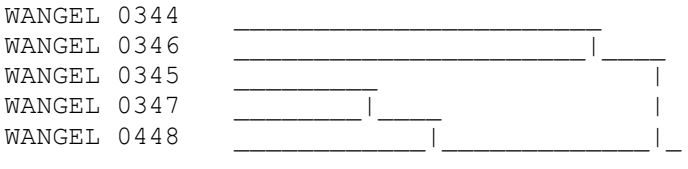
50 Group Level, Member: 11,

Average Number of Species / Site: 8
Sites from: WANGEL - 5
Sites in Habitats: scs - 3 scr - 1 sms - 1

Common Species: (Name - % of Sites, Range of Cover)
Triodia epactia - 100%, <1% to 33-50%
Cassia glutinosa - 100%, <1% to <1%
Eucalyptus leucophloia - 80%, <1% to 5-10%
Hakea lorea ssp. lorea - 60%, <1% to <1%
Triodia brizoides - 60%, <1% to <1%
Acacia bivenosa - 60%, <1% to <1%

200 Floristic Group Level, Unit: 58,

Average Number of Species / Site: 8
Sites from: WANGEL - 5
Sites in Habitats: scs - 3 scr - 1 sms - 1
Portion of Dendrogram: (Area and Site on left)



Vegetation Description:
WANGEL 0344 Scattered low trees of Eucalyptus leucophloia over Triodia pungens hummock grassland
WANGEL 0346 Scattered low trees of Eucalyptus leucophloia over low scattered shrubs of Cassia glutinosa over Triodia pungens very open hummock grassland over Cymbopogon sp._and Eriachne mucronata scattered tussock grassland
WANGEL 0345 Scattered low trees of Eucalyptus leucophloia over Triodia pungens hummock grassland
WANGEL 0347 Eucalyptus leucophloia and Corymbia hamersleyana low open woodland over low scattered shrubs of Acacia bivenosa over Triodia pungens hummock grassland
WANGEL 0448 Triodia pungens hummock grassland

Soil:
WANGEL 0344 Outcrop and cobbly/coarse pebbly light orange-brown loam
WANGEL 0346
WANGEL 0345 Light orange-brown gravelly/pebbly loam with angular pebble surface. Outcropping sandstone?
WANGEL 0347 Dull orange-brown pebbly loam with large cobbles
WANGEL 0448 Terracotta coloured pebbly loam with pebble surface~ some massive (siliceous) outcrop

Common Species: (Name - % of Sites, Range of Cover)
Triodia epactia - 100%, <1% to 33-50%
Cassia glutinosa - 100%, <1% to <1%
Eucalyptus leucophloia - 80%, <1% to 5-10%
Acacia bivenosa - 60%, <1% to <1%
Triodia brizoides - 60%, <1% to <1%
Hakea lorea ssp. lorea - 60%, <1% to <1%

50 Group Level, Member: 12,

Average Number of Species / Site: 21
Sites from: WANGEL - 8
Sites in Habitats: dns - 2 ds - 2 dnr - 1 dn - 1 d - 1 scs - 1

Common Species: (Name - % of Sites, Range of Cover)
Acacia arida - 100%, 5-10% to 25-33%
Triodia epactia - 88%, <1% to 10-25%
Triodia wiseana - 62%, <1% to 10-25%
Cleome viscosa - 62%, <1% to <1%
Tephrosia rosea var. clementii - 62%, <1% to <1%
Indigofera rugosa - 62%, <1% to 1-5%
Corchorus sp.Millstream(A.S.George 3488) - 62%, <1% to <1%
Acacia pyrifolia (slender form) - 50%, <1% to <1%
Polycarpaea longiflora (pale form) - 50%, <1% to <1%

200 Floristic Group Level, Unit: 59,

Average Number of Species / Site: 33
Sites from: WANGEL - 2
Sites in Habitats: dn - 1 ds - 1
Portion of Dendrogram: (Area and Site on left)
WANGEL 0009 _____
WANGEL 0068 _____|_____

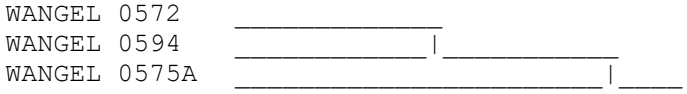
Vegetation Description:
WANGEL 0009 Acacia ancistrocarpa~ Acacia arida~ Eremophila longifolia~ Cassia glutinosa open shrubland over Indigofera rugosa low open shrubland over Triodia pungens hummock grassland
WANGEL 0068 Scattered low trees of Terminalia canescens and Corymbia hamersleyana over Acacia arida~ Acacia trachycarpa open scrub over Indigofera rugosa low open shrubland over Triodia wiseana~ Triodia pungens open hummock grassland with scattered Cymbopogon tussoc

Soil:
WANGEL 0009 Banks brown to red brown loam~ pebbly in places~ bed mixed pebbles~ gravel and a few cobbles. Some sandy banks
WANGEL 0068 Banks sandy/loamy~ red-brown between cobbles

Common Species: (Name - % of Sites, Range of Cover)
Acacia arida - 100%, 10-25% to 10-25%
Tephrosia rosea var. clementii - 100%, <1% to <1%
Indigofera rugosa - 100%, 1-5% to 1-5%
Hybanthus aurantiacus - 100%, <1% to <1%
Triodia epactia - 100%, 1-5% to 10-25%
Ptilotus astrolasius - 100%, <1% to <1%
Swainsona formosa - 100%, <1% to <1%
Gossypium australe (Burrup Peninsula form) - 100%, <1% to <1%
Cassia venusta - 100%, <1% to <1%
Cymbopogon ambiguus - 100%, <1% to 1-5%
Trichodesma zeylanicum - 100%, <1% to <1%
Grevillea wickhamii - 100%, <1% to <1%
Waltheria indica - 100%, <1% to <1%
Phyllanthus maderaspatensis var. angustifolius - 100%, <1% to <1%
Boerhavia gardneri - 100%, <1% to <1%

200 Floristic Group Level, Unit: 60,

Average Number of Species / Site: 15
Sites from: WANGEL - 3
Sites in Habitats: d - 1 dns - 1 scs - 1
Portion of Dendrogram: (Area and Site on left)



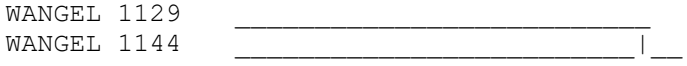
Vegetation Description:
WANGEL 0572 Acacia arida open shrubland over Triodia wiseana and Triodia pungens open hummock grassland
WANGEL 0594 Acacia arida shrubland over Triodia wiseana and Triodia pungens open hummock grassland
WANGEL 0575A Acacia trachycarpa high shrubland over Acacia arida open heath over Triodia pungens open hummock grassland

Soil:
WANGEL 0572 Light brown very gravelly loam~ amongst outcrop
WANGEL 0594 Orange-brown pebbly loam with gravelly coarse pebbly surface. Some small patches sandy loam surface
WANGEL 0575A Light brown sand~ some cobbles on slopes

Common Species: (Name - % of Sites, Range of Cover)
Acacia arida - 100%, 5-10% to 25-33%
Acacia pyrifolia (slender form) - 100%, <1% to <1%
Triodia epactia - 100%, 5-10% to 10-25%
Corchorus sp.Millstream(A.S.George 3488) - 100%, <1% to <1%
Triodia wiseana - 67%, 5-10% to 10-25%
Tephrosia rosea var. clementii - 67%, <1% to <1%
Polycarpaea longiflora (pale form) - 67%, <1% to <1%
Indigofera rugosa - 67%, <1% to <1%
Trachymene oleracea - 67%, <1% to <1%
Euphorbia wheeleri - 67%, <1% to <1%
Cleome viscosa - 67%, <1% to <1%

200 Floristic Group Level, Unit: 61,

Average Number of Species / Site: 21
Sites from: WANGEL - 2
Sites in Habitats: dns - 1 ds - 1
Portion of Dendrogram: (Area and Site on left)



Vegetation Description:
WANGEL 1129 Acacia arida high shrubland over Stemodia grossa open herbland and Triodia angusta and Triodia wiseana hummock grassland
WANGEL 1144 Acacia arida shrubland to open heath over Stemodia grossa low shrubland over Triodia wiseana and Triodia pungens hummock grassland

Soil:
WANGEL 1129 Brown sandy loam pebbly/cobbly in places. Has some seepage in centre
WANGEL 1144 various - sandy gravel

Common Species: (Name - % of Sites, Range of Cover)
Stemodia grossa - 100%, 5-10% to 10-25%
Acacia arida - 100%, 5-10% to 25-33%

Polymeria ambigua - 100%, <1% to <1%
Triodia epactia - 100%, <1% to <1%
Pluchea rubelliflora - 100%, <1% to <1%
Cajanus cinereus - 100%, <1% to <1%
Triodia wiseana - 100%, <1% to 5-10%
Pterocaulon sphacelatum - 100%, <1% to <1%

200 Floristic Group Level, Unit: 62,

Average Number of Species / Site: 15
Sites from: WANGEL - 1
Sites in Habitats: dnr - 1
Portion of Dendrogram: (Area and Site on left)
WANGEL 0603 _____

Vegetation Description:
WANGEL 0603 Acacia ancistrocarpa high open shrubland over Acacia arida shrubland over low scattered shrubs of Indigofera monophylla (grey leaflet form)

Soil:
WANGEL 0603 Red-brown loam~ pebbly between boulders

Common Species: (Name - % of Sites, Range of Cover)
Polycarpaea longiflora (pale form) - 100%, <1% to <1%
Acacia arida - 100%, 10-25% to 10-25%
Cajanus cinereus - 100%, <1% to <1%
Indigofera monophylla (grey leaflet form) - 100%, 1-5% to 1-5%
Gomphrena cunninghamii - 100%, <1% to <1%
Cleome viscosa - 100%, <1% to <1%
Acacia ancistrocarpa - 100%, 5-10% to 5-10%
Solanum horridum - 100%, <1% to <1%
Hibiscus sturtii var. campylochlamys - 100%, <1% to <1%
Corchorus laniflorus - 100%, <1% to <1%
Indigastrum parviflorum - 100%, <1% to <1%
Trachymene oleracea - 100%, <1% to <1%
Cassia notabilis - 100%, <1% to <1%
Acacia tumida - 100%, <1% to <1%
Crotalaria medicaginea - 100%, <1% to <1%

50 Group Level, Member: 13,

Average Number of Species / Site: 24
Sites from: WANGEL - 16
Sites in Habitats: dap - 6 ds - 4 daps - 2 dn - 2 d - 1 dns - 1

Common Species: (Name - % of Sites, Range of Cover)
Triodia epactia - 100%, <1% to >70%
Cenchrus ciliaris - 75%, <1% to 50-70%
Trichodesma zeylanicum - 69%, <1% to <1%
Cleome viscosa - 62%, <1% to <1%
Tephrosia rosea var. clementii - 62%, <1% to 25-33%
Acacia trachycarpa - 62%, <1% to 33-50%
Amaranthus pallidiflorus - 62%, <1% to <1%
Corchorus sp.Millstream(A.S.George 3488) - 56%, <1% to 10-25%
Euphorbia australis (West Angelas site 1103) - 56%, <1% to <1%
Swainsona formosa - 50%, <1% to <1%
Euphorbia coghlanii - 50%, <1% to <1%
Aerva javanica - 44%, <1% to 5-10%

200 Floristic Group Level, Unit: 63,

Average Number of Species / Site: 24
Sites from: WANGEL - 2
Sites in Habitats: dap - 1 ds - 1
Portion of Dendrogram: (Area and Site on left)
WANGEL 0016 _____
WANGEL 0019 _____|_____

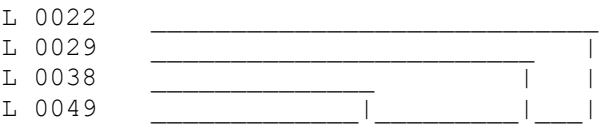
Vegetation Description:
WANGEL 0016 Scattered trees of Eucalyptus camaldulensis var. obtusa over Triodia pungens hummock grassland
WANGEL 0019 Acacia trachycarpa high shrubland over Triodia pungens~ *Cenchrus ciliaris open hummock/tussock grassland

Soil:
WANGEL 0016 Orange-brown sandy loam with some pebbles and some cobbles
WANGEL 0019 Red-brown sandy loam

Common Species: (Name - % of Sites, Range of Cover)
Triodia epactia - 100%, 1-5% to 10-25%
Boerhavia coccinea - 100%, <1% to <1%
Euphorbia coghlanii - 100%, <1% to <1%
Polycarpaea longiflora (pale form) - 100%, <1% to <1%
Cenchrus ciliaris - 100%, <1% to 1-5%
Amaranthus mitchellii - 100%, <1% to <1%
Amaranthus pallidiflorus - 100%, <1% to <1%
Cleome viscosa - 100%, <1% to <1%
Trichodesma zeylanicum - 100%, <1% to <1%
Swainsona formosa - 100%, <1% to <1%
Euphorbia tannensis subsp. eremophila - 100%, <1% to <1%
Phyllanthus maderaspatensis var. angustifolius - 100%, <1% to <1%

200 Floristic Group Level, Unit: 64,

Average Number of Species / Site: 23
Sites from: WANGEL - 4
Sites in Habitats: dap - 2 daps - 1 dns - 1
Portion of Dendrogram: (Area and Site on left)



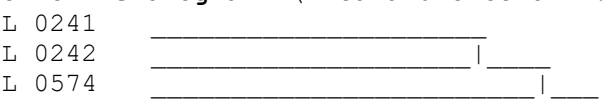
Vegetation Description:
WANGEL 0022 Cullen leucanthum~ *Aerva javanica open shrubland over *Cenchrus ciliaris~ *Cenchrus echinatus~ Triodia pungens tussock/hummock grassland
WANGEL 0029 Scattered shrubs of Acacia inaequilatera over low scattered shrubs of Indigofera rugosa over Triodia pungens~ Triodia wiseana hummock grassland
WANGEL 0038 Acacia arida~ Acacia trachycarpa high shrubland over scattered shrubs of Cynachum sp._(MET 15 151) over low scattered shrubs of Indigofera rugosa over Triodia pungens~ *Cenchrus ciliaris hummock/tussock grassland
WANGEL 0049 Acacia arida shrubland over scattered low shrubs of Cassia oligophylla~ Cassia oligophylla x helmsii over Triodia pungens~ *Cenchrus ciliaris hummock/tussock grassland

Soil:
WANGEL 0022 Red-brown loamy sand~ cobbly at edges of rise
WANGEL 0029 Red loamy fine sand~ with few pebbles
WANGEL 0038 Pebbly mixed~ grain size sands. Cobbly and bouldery in place
WANGEL 0049 Brown loamy sand with some pebbles (banks) and coarse pebbly/cobbly sand in bed~ (bed about 2-3 m wide). Rather like site 16

Common Species: (Name - % of Sites, Range of Cover)
Cenchrus ciliaris - 100%, <1% to 50-70%
Amaranthus pallidiflorus - 100%, <1% to <1%
Triodia epactia - 100%, 10-25% to >70%
Ptilotus astrolasius - 100%, <1% to <1%
Trichodesma zeylanicum - 100%, <1% to <1%
Cassia oligophylla - 100%, <1% to <1%
Aerva javanica - 75%, <1% to 1-5%
Indigofera rugosa - 75%, <1% to 1-5%
Corchorus sp.Millstream(A.S.George 3488) - 75%, <1% to <1%
Tephrosia rosea var. clementii - 75%, <1% to <1%

200 Floristic Group Level, Unit: 65,

Average Number of Species / Site: 27
Sites from: WANGEL - 3
Sites in Habitats: dap - 2 dn - 1
Portion of Dendrogram: (Area and Site on left)



Vegetation Description:
WANGEL 0241 Eucalyptus victrix woodland over Corchorus sp._Millstream open shrubland over Cassia notabilis low shrubland over Triodia pungens hummock grassland over *Cenchrus ciliaris very open tussock grassland
WANGEL 0242 Cassia notabilis~ Corchorus sp._Millstream~ *Aerva javanica low open heath over Triodia pungens open hummock grassland over *Cenchrus ciliaris~ *Cenchrus echinatus very open tussock grassland

WANGEL 0574 Scattered trees of Eucalyptus victrix over Tephrosia rosea var. clementii and Corchorus sp._Millstream low open heath over Triodia pungens hummock grassland

Soil:
WANGEL 0241
WANGEL 0242 Light brown silt with some pebbles and cobbles
WANGEL 0574 Loamy fine sand

Common Species: (Name - % of Sites, Range of Cover)
Andrachne decaisnei - 100%, <1% to <1%
Euphorbia wheeleri - 100%, <1% to <1%
Triodia epactia - 100%, <1% to 33-50%
Euphorbia australis (West Angelas site 1103) - 100%, <1% to <1%
Corchorus sp.Millstream(A.S.George 3488) - 100%, 1-5% to 10-25%
Ipomoea muelleri - 100%, <1% to <1%
Cassia notabilis - 100%, <1% to 10-25%
Trichodesma zeylanicum - 100%, <1% to <1%
Bonamia media var. villosa - 67%, <1% to <1%
Cleome viscosa - 67%, <1% to <1%
Boerhavia coccinea - 67%, <1% to <1%
Aerva javanica - 67%, <1% to 5-10%
Swainsona formosa - 67%, <1% to <1%
Mollugo molluginis - 67%, <1% to <1%
Eucalyptus victrix - 67%, <1% to 25-33%
Cenchrus ciliaris - 67%, 1-5% to 5-10%
Abutilon trudgenii - 67%, <1% to <1%
Acacia pyrifolia (slender form) - 67%, <1% to <1%
Waltheria indica - 67%, <1% to <1%
Hibiscus panduriformis - 67%, <1% to <1%

200 Floristic Group Level, Unit: 66,

Average Number of Species / Site: 25
Sites from: WANGEL - 2
Sites in Habitats: ds - 2
Portion of Dendrogram: (Area and Site on left)
WANGEL 0141 _____
WANGEL 0143 _____|_____

Vegetation Description:
WANGEL 0141 Scattered low trees of Terminalia canescens~ Eucalyptus victrix over scattered tall shrubs of Acacia trachycarpa over Triodia pungens open hummock grassland
WANGEL 0143 Scattered low trees of Terminalia canescens over Acacia trachycarpa~ Acacia pyrifolia (slender form)~ Acacia coriacea ssp. pendulans~ Flueggia virosa ssp. melanthesioides open scrub over Triumfetta appendiculata open shrubland over *Cenchrus ciliaris tus

Soil:
WANGEL 0141 Some coarsely sandy/pebbly areas (with Triodia pungens)
WANGEL 0143 Coarsely sandy gravelly bed and loamy small flood plain (red-brown)

Common Species: (Name - % of Sites, Range of Cover)
Terminalia canescens - 100%, <1% to 1-5%
Waltheria indica - 100%, <1% to <1%
Mukia aff. maderaspatana (4) (green not scabrid) - 100%, <1% to <1%
Acacia trachycarpa - 100%, 1-5% to 25-33%
Euphorbia australis (West Angelas site 1103) - 100%, <1% to <1%

Tephrosia rosea var. clementii - 100%, <1% to <1%
Acacia pyrifolia (slender form) - 100%, <1% to 1-5%
Eriachne tenuiculmis - 100%, <1% to <1%
Triodia epactia - 100%, 1-5% to 5-10%
Triumfetta appendiculata (Whim Creek form) - 100%, <1% to 1-5%
Flueggea virosa subsp. melanthesoides - 100%, <1% to 1-5%
Amaranthus pallidiflorus - 100%, <1% to <1%
Solanum horridum - 100%, <1% to <1%
Cleome viscosa - 100%, <1% to <1%
Acacia coriacea - 100%, <1% to <1%

200 Floristic Group Level, Unit: 67,

Average Number of Species / Site: 22
Sites from: WANGEL - 1
Sites in Habitats: daps - 1
Portion of Dendrogram: (Area and Site on left)
WANGEL 1176 _____

Vegetation Description:
WANGEL 1176 Acacia trachycarpa and Acacia pyrifolia open scrub to high open shrubland over *Cenchrus ciliaris tussock grassland

Soil:
WANGEL 1176 Pale brown loam (clay loam?) and river stones

Common Species: (Name - % of Sites, Range of Cover)
Brachyachne prostrata - 100%, <1% to <1%
Tephrosia rosea var. clementii - 100%, <1% to <1%
Portulaca oleracea - 100%, <1% to <1%
Cleome viscosa - 100%, <1% to <1%
Salsola kali - 100%, <1% to <1%
Aerva javanica - 100%, <1% to <1%
Portulaca pilosa - 100%, <1% to <1%
Enneapogon oblongus - 100%, <1% to <1%
Cassia oligophylla x helmsii - 100%, <1% to <1%
Boerhavia burbidgeana - 100%, <1% to <1%
Jasminum didymum subsp. lineare - 100%, <1% to <1%
Triodia epactia - 100%, <1% to <1%
Acacia pyrifolia - 100%, 5-10% to 5-10%
Acacia trachycarpa - 100%, 33-50% to 33-50%
Cenchrus ciliaris - 100%, 33-50% to 33-50%
Tribulus platypterus - 100%, <1% to <1%
Corymbia hamersleyana - 100%, <1% to <1%
Corchorus sp.Millstream(A.S.George 3488) - 100%, <1% to <1%
Enneapogon caerulescens var. occidentalis - 100%, <1% to <1%
Acacia coriacea - 100%, <1% to <1%

200 Floristic Group Level, Unit: 68,

Average Number of Species / Site: 16
Sites from: WANGEL - 2
Sites in Habitats: d - 1 dap - 1
Portion of Dendrogram: (Area and Site on left)
WANGEL 0591 _____
WANGEL 0592 _____|_____

Vegetation Description:
WANGEL 0591 Acacia trachycarpa high open shrubland over low scattered shrubs of Rhynchosia cf. minima over Triodia pungens hummock grassland
WANGEL 0592 Scattered low trees of Eucalyptus victrix over Melaleuca linophylla and Acacia trachycarpa high shrubland over Triodia pungens very open hummock grassland over over scattered tussock grassland of *Cenchrus ciliaris

Soil:
WANGEL 0591 Light brown sand (over loam)
WANGEL 0592 Banks orange-brown loam. Bed light grey-brown gravelly sand

Common Species: (Name - % of Sites, Range of Cover)
Acacia coriacea - 100%, <1% to <1%
Rhynchosia cf. minima - 100%, <1% to 1-5%
Themeda triandra - 100%, <1% to <1%
Acacia trachycarpa - 100%, 1-5% to 10-25%
Triodia epactia - 100%, 10-25% to 33-50%
Swainsona formosa - 100%, <1% to <1%
Indigofera colutea - 100%, <1% to <1%
Indigofera linifolia - 100%, <1% to <1%

200 Floristic Group Level, Unit: 69,

Average Number of Species / Site: 10
Sites from: WANGEL - 1
Sites in Habitats: ds - 1
Portion of Dendrogram: (Area and Site on left)
WANGEL 1136 _____

Vegetation Description:
WANGEL 1136 Cajanus cinereus open scrub over Convolvulus erubescens low open lianes over Triodia pungens hummock grassland

Soil:
WANGEL 1136 Brown silty loam and river stones

Common Species: (Name - % of Sites, Range of Cover)
Acacia trachycarpa - 100%, <1% to <1%
Euphorbia coghlanii - 100%, <1% to <1%
Cajanus cinereus - 100%, 33-50% to 33-50%
Acacia pyrifolia - 100%, <1% to <1%
Polymeria ambigua - 100%, <1% to <1%
Pterocaulon sphacelatum - 100%, <1% to <1%
Triodia epactia - 100%, 33-50% to 33-50%
Convolvulus erubescens - 100%, 33-50% to 33-50%
Crotalaria medicaginea - 100%, <1% to <1%
Tephrosia rosea var. clementii - 100%, <1% to <1%

200 Floristic Group Level, Unit: 70,

Average Number of Species / Site: 47
Sites from: WANGEL - 1
Sites in Habitats: dn - 1
Portion of Dendrogram: (Area and Site on left)
WANGEL 1137 _____|

Vegetation Description:
WANGEL 1137 Scattered Corymbia hamersleyana low trees over Cajanus cinereus shrubland over Triodia pungens~ Triodia wiseana and Triodia longiceps open hummock grassland and scattered Chrysopogon fallax tussock grassland

Soil:
WANGEL 1137 Light brown loamy fine sand

Common Species: (Name - % of Sites, Range of Cover)
Indigofera rugosa - 100%, <1% to <1%
Cenchrus ciliaris - 100%, <1% to <1%
Acacia pyrifolia (slender form) - 100%, <1% to <1%
Mukia aff. maderaspatana (4) (green not scabrid) - 100%, <1% to <1%
Rhynchosia cf. minima - 100%, <1% to <1%
Sida aff. clementii (site 1137) - 100%, <1% to <1%
Tephrosia rosea var. clementii - 100%, <1% to <1%
Euphorbia australis (West Angelas site 1103) - 100%, <1% to <1%
Chrysopogon fallax - 100%, 1-5% to 1-5%
Cyperus vaginatus - 100%, <1% to <1%
Pluchea rubelliflora - 100%, <1% to <1%
Indigofera colutea - 100%, <1% to <1%
Cassia notabilis - 100%, <1% to <1%
Crotalaria medicaginea - 100%, <1% to <1%
Triodia longiceps - 100%, 1-5% to 1-5%
Acacia bivenosa - 100%, <1% to <1%
Cassytha capillaris - 100%, <1% to <1%
Ptilotus axillaris - 100%, <1% to <1%
Grevillea pyramidalis - 100%, <1% to <1%
Triodia wiseana - 100%, 1-5% to 1-5%

50 Group Level, Member: 14,

Average Number of Species / Site: 17
Sites from: WANGEL - 6
Sites in Habitats: ds - 3 smr - 1 d - 1 dnr - 1

Common Species: (Name - % of Sites, Range of Cover)
Triodia epactia - 100%, <1% to 10-25%
Eriachne tenuiculmis - 100%, <1% to <1%
Flueggea virosa subsp. melanthesoides - 83%, <1% to 1-5%
Melaleuca glomerata - 67%, <1% to 33-50%
Goodenia lamprosperma - 50%, <1% to <1%
Cenchrus ciliaris - 50%, <1% to 5-10%
Terminalia canescens - 50%, <1% to 5-10%
Eucalyptus camaldulensis var. obtusa - 50%, <1% to 5-10%
Jacquemontia pannosa - 50%, <1% to <1%
Hybanthus aurantiacus - 50%, <1% to <1%
Cyperus vaginatus - 50%, <1% to <1%
Cleome viscosa - 50%, <1% to <1%
Acacia coriacea - 50%, <1% to <1%
Cymbopogon ambiguus - 50%, <1% to 1-5%

200 Floristic Group Level, Unit: 71,

Average Number of Species / Site: 22
Sites from: WANGEL - 1
Sites in Habitats: ds - 1
Portion of Dendrogram: (Area and Site on left)
WANGEL 0017 _____

Vegetation Description:
WANGEL 0017 Eucalyptus camaldulensis var. obtusa open woodland over scattered shrubs of Melaleuca glomerata and Flueggia virosa ssp. melanthesioides over scattered Triodia pungens and Eriachne tenuiculmis hummock and tussock grasses

Soil:
WANGEL 0017 Brown loam and sandy particles between densely packed pebbles and cobbles

Common Species: (Name - % of Sites, Range of Cover)
Cassia notabilis - 100%, <1% to <1%
Tephrosia rosea var. clementii - 100%, <1% to <1%
Ammannia auriculata - 100%, <1% to <1%
Eriachne tenuiculmis - 100%, <1% to <1%
Alternanthera angustifolia - 100%, <1% to <1%
Corchorus tridens - 100%, <1% to <1%
Acacia coriacea - 100%, <1% to <1%
Sesbania cannabina - 100%, <1% to <1%
Operculina aequisepala - 100%, <1% to <1%
Amaranthus pallidiflorus - 100%, <1% to <1%
Cleome viscosa - 100%, <1% to <1%
Ipomoea coptica - 100%, <1% to <1%
Goodenia lamprosperma - 100%, <1% to <1%
Cymbopogon ambiguus - 100%, <1% to <1%
Melaleuca linophylla - 100%, <1% to <1%
Phyllanthus maderaspatensis var. angustifolius - 100%, <1% to <1%
Basilicum polystachyon - 100%, <1% to <1%
Triodia epactia - 100%, <1% to <1%
Melaleuca glomerata - 100%, <1% to <1%
Eucalyptus camaldulensis var. obtusa - 100%, <1% to <1%

200 Floristic Group Level, Unit: 72,

Average Number of Species / Site: 23
Sites from: WANGEL - 1
Sites in Habitats: smr - 1
Portion of Dendrogram: (Area and Site on left)
WANGEL 0036 _____

Vegetation Description:
WANGEL 0036 Scattered Triodia wiseana~ Triodia pungens and Cymbopogon ambiguus hummocks and tussocks

Soil:
WANGEL 0036 Brown sandy loam in cracks in basic igneous rock

Common Species: (Name - % of Sites, Range of Cover)
Paspalidium clementii - 100%, <1% to <1%
Cenchrus ciliaris - 100%, <1% to <1%
Polycarpaea longiflora (pale form) - 100%, <1% to <1%
Cymbopogon ambiguus - 100%, 1-5% to 1-5%
Acacia coriacea - 100%, <1% to <1%

Triodia wiseana - 100%, 5-10% to 5-10%
Cyperus vaginatus - 100%, <1% to <1%
Aerva javanica - 100%, <1% to <1%
Boerhavia gardneri - 100%, <1% to <1%
Eriachne tenuiculmis - 100%, <1% to <1%
Euphorbia australis (West Angelas site 1103) - 100%, <1% to <1%
Terminalia canescens - 100%, <1% to <1%
Rhynchosia cf. minima - 100%, <1% to <1%
Basilicum polystachyon - 100%, <1% to <1%
Triodia epactia - 100%, <1% to <1%
Sesbania cannabina - 100%, <1% to <1%
Trachymene oleracea - 100%, <1% to <1%
Polymeria ambigua - 100%, <1% to <1%
Jacquemontia pannosa - 100%, <1% to <1%
Andrachne decaisnei - 100%, <1% to <1%

200 Floristic Group Level, Unit: 73,

Average Number of Species / Site: 14
Sites from: WANGEL - 2
Sites in Habitats: ds - 2
Portion of Dendrogram: (Area and Site on left)
WANGEL 0021 _____
WANGEL 0023 _____|_____

Vegetation Description:
WANGEL 0021 Eucalyptus camaldulensis var. obtusa open woodland over Melaleuca glomerata~ Flueggia virosa ssp. melanthesioides open scrub over *Cenchrus ciliaris~ *Cenchrus echinatus tussock grassland with scattered Triodia pungens hummocks
WANGEL 0023 Eucalyptus camaldulensis var. obtusa low woodland over Melaleuca glomerata~ Flueggia virosa ssp. melanthesioides~ Acacia trachycarpa high shrubland over Triodia pungens very open hummock grassland

Soil:
WANGEL 0021 Cobbly with sand and loam. Banks loamy
WANGEL 0023 Cobbly~ some fine material

Common Species: (Name - % of Sites, Range of Cover)
Flueggea virosa subsp. melanthesoides - 100%, <1% to 1-5%
Melaleuca glomerata - 100%, 10-25% to 33-50%
Eriachne tenuiculmis - 100%, <1% to <1%
Cenchrus ciliaris - 100%, <1% to 5-10%
Triodia epactia - 100%, 1-5% to 5-10%
Hybanthus aurantiacus - 100%, <1% to <1%
Eucalyptus camaldulensis var. obtusa - 100%, 5-10% to 5-10%

200 Floristic Group Level, Unit: 74,

Average Number of Species / Site: 15
Sites from: WANGEL - 1
Sites in Habitats: dnr - 1
Portion of Dendrogram: (Area and Site on left)
WANGEL 0348 _____

Vegetation Description:
WANGEL 0348 Terminalia canescens low open woodland over Eriachne tenuiculmis scattered tussock grassland over Triodia pungens very open hummock grassland

Soil:

WANGEL 0348 Cobbly~ bouldery~ pebbly~ gravelly coarse sand. Much bare rock

Common Species: (Name - % of Sites, Range of Cover)
Cyperus hesperius - 100%, <1% to <1%
Grevillea pyramidalis - 100%, <1% to <1%
Terminalia canescens - 100%, 5-10% to 5-10%
Cymbopogon sp. - 100%, <1% to <1%
Clerodendrum sp. - 100%, <1% to <1%
Eriachne mucronata - 100%, <1% to <1%
Tinospora smilacina - 100%, <1% to <1%
Goodenia lamprosperma - 100%, <1% to <1%
Triodia epactia - 100%, 5-10% to 5-10%
Jacquemontia pannosa - 100%, <1% to <1%
Brachychiton acuminatus - 100%, <1% to <1%
Jasminum didymum subsp. lineare - 100%, <1% to <1%
Flueggea virosa subsp. melanthesoides - 100%, <1% to <1%
Eriachne tenuiculmis - 100%, <1% to <1%
Cyperus vaginatus - 100%, <1% to <1%

200 Floristic Group Level, Unit: 75,

Average Number of Species / Site: 19
Sites from: WANGEL - 1
Sites in Habitats: d - 1
Portion of Dendrogram: (Area and Site on left)
WANGEL 0349 _____

Vegetation Description:
WANGEL 0349 Eucalyptus victrix and Terminalia canescens low woodland over Melaleuca glomerata high open shrubland over Triodia pungens open hummock grassland

Soil:
WANGEL 0349 = site 248

Common Species: (Name - % of Sites, Range of Cover)
Indigofera monophylla (grey leaflet form) - 100%, <1% to <1%
Acacia monticola - 100%, <1% to <1%
Acacia bivenosa - 100%, <1% to <1%
Mollugo molluginis - 100%, <1% to <1%
Eriachne tenuiculmis - 100%, <1% to <1%
Acacia maitlandii - 100%, <1% to <1%
Acacia pyrifolia (slender form) - 100%, <1% to <1%
Hibiscus platychlamys - 100%, <1% to <1%
Eucalyptus victrix - 100%, 10-25% to 10-25%
Acacia tumida - 100%, <1% to <1%
Cassia glutinosa - 100%, <1% to <1%
Flueggea virosa subsp. melanthesoides - 100%, <1% to <1%
Jacquemontia pannosa - 100%, <1% to <1%
Hybanthus aurantiacus - 100%, <1% to <1%
Terminalia canescens - 100%, <1% to <1%
Melaleuca glomerata - 100%, 5-10% to 5-10%
Goodenia lamprosperma - 100%, <1% to <1%
Triodia epactia - 100%, 10-25% to 10-25%
Cassytha capillaris - 100%, <1% to <1%

50 Group Level, Member: 15,

Average Number of Species / Site: 39
Sites from: WANGEL - 26
Sites in Habitats: ds - 22 d - 2 dnr - 1 dn - 1

Common Species: (Name - % of Sites, Range of Cover)
Stemodia grossa - 88%, <1% to 5-10%
Cyperus vaginatus - 85%, <1% to 1-5%
Phyllanthus maderaspatensis var. angustifolius - 85%, <1% to <1%
Flueggea virosa subsp. melanthesoides - 81%, <1% to 1-5%
Terminalia canescens - 77%, <1% to 25-33%
Sesbania cannabina - 77%, <1% to <1%
Ammannia baccifera - 73%, <1% to <1%
Euphorbia coghlanii - 73%, <1% to <1%
Pluchea rubelliflora - 69%, <1% to 1-5%
Cleome viscosa - 69%, <1% to <1%
Acacia coriacea - 69%, <1% to 5-10%
Triodia epactia - 62%, <1% to 10-25%
Eragrostis cumingii - 62%, <1% to <1%
Eriachne tenuiculmis - 62%, <1% to 10-25%
Trichodesma zeylanicum - 58%, <1% to <1%
Acacia pyrifolia (slender form) - 58%, <1% to 1-5%
Eragrostis tenellula - 54%, <1% to <1%
Amaranthus pallidiflorus - 54%, <1% to <1%
Tephrosia rosea var. clementii - 54%, <1% to 5-10%
Crotalaria medicaginea - 50%, <1% to <1%

200 Floristic Group Level, Unit: 76,

Average Number of Species / Site: 42
Sites from: WANGEL - 3
Sites in Habitats: d - 1 dn - 1 ds - 1
Portion of Dendrogram: (Area and Site on left)
WANGEL 0018 _____
WANGEL 0037 _____|_____
WANGEL 0020 _____|_____

Vegetation Description:
WANGEL 0018 Scattered shrubs of Flueggia virosa ssp. melanthesioides and Acacia trachycarpa over *Cenchrus ciliaris~ *Cenchrus echinatus~ Triodia pungens mixed tussock~ hummock grassland
WANGEL 0037 Scattered low trees of Terminalia canescens over scattered shrubs of Flueggia virosa ssp. melanthesioides over *Cenchrus ciliaris open tussock grassland with scattered Triodia pungens hummocks and Eriachne tenuiculmis tussocks
WANGEL 0020 Eucalyptus camaldulensis var. obtusa woodland over scattered tall shrubs of Melaleuca glomerata and Flueggia virosa ssp. melanthesioides over *Cenchrus ciliaris~ Cenchrus echinatus tussock grassland and scattered sedges of Cyperus vaginatus

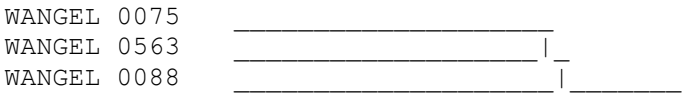
Soil:
WANGEL 0018 Dark brown~ damp~ clayey loam
WANGEL 0037 Coarse sand and pebble mix~ on drifts. Cobbles on lower areas. Finer sand on some drifts and banks. Some clay areas
WANGEL 0020 Brown and red-brown clayey loam on banks

Common Species: (Name - % of Sites, Range of Cover)
Fimbristylis microcarya - 100%, <1% to <1%

Basilicum polystachyon - 100%, <1% to <1%
Phyllanthus maderaspatensis var. angustifolius - 100%, <1% to <1%
Trichodesma zeylanicum - 100%, <1% to <1%
Ammannia baccifera - 100%, <1% to <1%
Flueggea virosa subsp. melanthesoides - 100%, <1% to 1-5%
Cyperus squarrosus - 100%, <1% to <1%
Cenchrus echinatus - 100%, <1% to 50-70%
Alternanthera angustifolia - 100%, <1% to <1%
Ludwigia perennis - 100%, <1% to <1%
Stemodia grossa - 100%, <1% to <1%
Amaranthus pallidiflorus - 100%, <1% to <1%
Sesbania cannabina - 100%, <1% to <1%
Cyperus difformis - 100%, <1% to <1%
Goodenia lamprosperma - 100%, <1% to <1%
Ipomoea plebeia - 100%, <1% to <1%
Cleome viscosa - 100%, <1% to <1%
Eragrostis cumingii - 100%, <1% to <1%
Cenchrus ciliaris - 100%, 10-25% to 50-70%
Euphorbia coghlanii - 100%, <1% to <1%

200 Floristic Group Level, Unit: 77,

Average Number of Species / Site: 49
Sites from: WANGEL - 3
Sites in Habitats: ds - 3
Portion of Dendrogram: (Area and Site on left)



Vegetation Description:
WANGEL 0075 Scattered low trees of Terminalia canescens over scattered tall shrubs of Acacia arida over scattered shrubs of Acacia trachycarpa over Triodia pungens very open hummock grassland
WANGEL 0563 Terminalia canescens and Eucalyptus victrix low open woodland over Melaleuca linophylla~ Acacia arida~ Acacia trachycarpa and Acacia coriacea ssp. pendulans high shrubland over Triodia pungens open hummock grassland
WANGEL 0088 Scattered low trees of Terminalia canescens over Melaleuca linophylla~ Acacia trachycarpa~ Flueggia virosa ssp. melanthesioides open scrub over *Cenchrus ciliaris~ Cenchrus echinatus~ Triodia pungens open tussock/hummock grassland

Soil:
WANGEL 0075 Bed brown gravelly sand~ cobbly in places. Some loamy banks
WANGEL 0563 Bed cobbly and sandy. Floodplain medium to coarse grained~ light brown sand gravelly and pebbly in places
WANGEL 0088

Common Species: (Name - % of Sites, Range of Cover)
Acacia arida - 100%, <1% to 1-5%
Solanum phlomoides - 100%, <1% to <1%
Corchorus sp.Millstream(A.S.George 3488) - 100%, <1% to <1%
Polymeria ambigua - 100%, <1% to <1%
Triodia epactia - 100%, 5-10% to 10-25%
Flaveria australasica - 100%, <1% to <1%
Crotalaria medicaginea - 100%, <1% to <1%
Stemodia grossa - 100%, <1% to <1%
Euphorbia australis (West Angelas site 1103) - 100%, <1% to <1%
Amaranthus pallidiflorus - 100%, <1% to <1%
Acacia trachycarpa - 100%, <1% to 1-5%

Terminalia canescens - 100%, <1% to 1-5%
Ammannia baccifera - 100%, <1% to <1%
Eragrostis tenellula - 100%, <1% to <1%
Melaleuca linophylla - 100%, <1% to 50-70%
Cleome viscosa - 100%, <1% to <1%
Trachymene oleracea - 100%, <1% to <1%
Fimbristylis microcarya - 100%, <1% to <1%
Malvastrum americanum - 67%, <1% to <1%
Tephrosia rosea var. clementii - 67%, <1% to <1%

200 Floristic Group Level, Unit: 78,

Average Number of Species / Site: 35
Sites from: WANGEL - 1
Sites in Habitats: d - 1
Portion of Dendrogram: (Area and Site on left)
WANGEL 0086 _____|

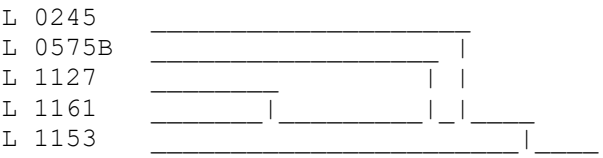
Vegetation Description:
WANGEL 0086 Eucalyptus victrix low open woodland over scattered tall shrubs of Acacia bivenosa and Acacia trachycarpa over Tephrosia rosea var. clementii low open shrubland over *Cenchrus ciliaris~ *Cenchrus echinatus~ Triodia pungens~ Cyperus vaginatus very open tu

Soil:
WANGEL 0086 Sands grey-brown~ loams brown

Common Species: (Name - % of Sites, Range of Cover)
Cleome viscosa - 100%, <1% to <1%
Portulaca oleracea - 100%, <1% to <1%
Cyperus vaginatus - 100%, <1% to <1%
Cenchrus ciliaris - 100%, 5-10% to 5-10%
Dactyloctenium radulans - 100%, <1% to <1%
Cenchrus echinatus - 100%, 5-10% to 5-10%
Tinospora smilacina - 100%, <1% to <1%
Rhynchosia cf. minima - 100%, <1% to <1%
Sporobolus australasicus - 100%, <1% to <1%
Acacia bivenosa - 100%, <1% to <1%
Stemodia grossa - 100%, <1% to <1%
Acacia trachycarpa - 100%, <1% to <1%
Cassia venusta - 100%, <1% to <1%
Indigofera colutea - 100%, <1% to <1%
Tephrosia rosea var. clementii - 100%, 5-10% to 5-10%
Sesbania cannabina - 100%, <1% to <1%
Eremophila longifolia - 100%, <1% to <1%
Cassia notabilis - 100%, <1% to <1%
Solanum horridum - 100%, <1% to <1%
Malvastrum americanum - 100%, <1% to <1%

200 Floristic Group Level, Unit: 79,

Average Number of Species / Site: 48
Sites from: WANGEL - 5
Sites in Habitats: ds - 5
Portion of Dendrogram: (Area and Site on left)



Vegetation Description:

WANGEL 0245 Melaleuca argentea and Eucalyptus camaldulensis var. obtusa woodland over Melaleuca glomerata~ Sesbania formosa~ Acacia trachycarpa and Acacia coriacea ssp. pendulans high shrubland over *Cenchrus ciliaris very open tussock grassland over Cyperus vaginat

WANGEL 0575B Eucalyptus camaldulensis var. obtusa and Eucalyptus victrix open woodland over Melaleuca linophylla~ Melaleuca glomerata and Acacia trachycarpa high shrubland over scattered hummock grassland of Triodia pungens over scattered tussock grassland of Eriachn

WANGEL 1127 Eucalyptus camaldulensis var. obtusa and Eucalyptus victrix woodland over Melaleuca glomerata high shrubland over scattered Triodia pungens hummock grassland and scattered Cyperus vaginatus sedgeland

WANGEL 1161 Eucalyptus camaldulensis var. obtusa and Eucalyptus victrix open woodland over Melaleuca glomerata and Acacia coriacea ssp. pendulans high shrubland over scattered Triodia pungens hummock grassland

WANGEL 1153 Eucalyptus camaldulensis var. obtusa and Melaleuca argentea woodland over Acacia ampliceps~ Acacia coriacea ssp. pendulans and Sesbania formosa scattered shrubs over *Cenchrus ciliaris and *Cenchrus echinatus open tussock grassland with scattered Cyperus

Soil:

WANGEL 0245 Mosaic of loamy banks~ cobbly bed~ sandy bed~ temporary pools. Where sandy light brown sand. Some permanent pools

WANGEL 0575B Bed very mixed~ includes old calcreted pebble/cobble areas now exposed~ loose pebble/cobble areas and sandy/loamy patches. Has permanent pools with flowing water

WANGEL 1127 Cobbly~ bouldery in bare areas. Cobbly~ pebbly~ gravelly coarse sand

WANGEL 1161 Cobbly~ pebbly coarse grey-brown sand. Some patches light brown sand

WANGEL 1153 Grey-brown loamy sand (wet areas) separated by (or overlain by) pebbly~ cobbly drifts. Water flowing (low flow~ trickle) between pools

Common Species: (Name - % of Sites, Range of Cover)

Eriachne sp. aff. festucacea - 100%, <1% to <1%
Stemodia grossa - 100%, <1% to <1%
Melaleuca glomerata - 100%, <1% to 10-25%
Cyperus vaginatus - 100%, <1% to 1-5%
Cleome viscosa - 100%, <1% to <1%
Ammannia baccifera - 100%, <1% to <1%
Sesbania cannabina - 100%, <1% to <1%
Eucalyptus camaldulensis var. obtusa - 100%, <1% to 10-25%
Triodia epactia - 100%, <1% to 1-5%
Pluchea rubelliflora - 100%, <1% to 1-5%
Acacia pyrifolia (slender form) - 100%, <1% to <1%
Acacia coriacea - 100%, <1% to <1%
Acacia trachycarpa - 80%, <1% to 1-5%

Phyllanthus maderaspatensis var. angustifolius - 80%, <1% to <1%
Flaveria australasica - 80%, <1% to <1%
Cenchrus ciliaris - 80%, <1% to 10-25%
Amaranthus pallidiflorus - 80%, <1% to <1%
Swainsona formosa - 80%, <1% to <1%
Ipomoea muelleri - 80%, <1% to <1%
Euphorbia coghlanii - 80%, <1% to <1%

200 Floristic Group Level, Unit: 80,

Average Number of Species / Site: 30
Sites from: WANGEL - 3
Sites in Habitats: ds - 3
Portion of Dendrogram: (Area and Site on left)
WANGEL 0054 _____
WANGEL 0072 _____|_____
WANGEL 0129 _____|____

Vegetation Description:
WANGEL 0054 Terminalia canescens low woodland over Triodia pungens hummock grassland with scattered Eriachne tenuiculmis tussocks
WANGEL 0072 Scattered trees of Eucalyptus camaldulensis var. obtusa over low open woodland of Terminalia canescens over scattered tall shrubs of Acacia coriacea ssp. pendulans over Triodia wiseana hummock grassland
WANGEL 0129 Terminalia canescens low woodland over Triodia pungens very open hummock grassland

Soil:
WANGEL 0054 The creek bed was a mixed grain sized gravel with some pebbles~ outcrop and boulders. The banks were light brown sandy loam~ very pebbly
WANGEL 0072 Bed of mosaic~ large cobble area and sandy areas~ mostly former
WANGEL 0129 Cobbly/bouldery creek bed with some gravel and some red-brown silty material

Common Species: (Name - % of Sites, Range of Cover)
Euphorbia coghlanii - 100%, <1% to <1%
Flueggea virosa subsp. melanthesoides - 100%, <1% to <1%
Triodia epactia - 100%, 5-10% to 10-25%
Acacia arida - 100%, <1% to <1%
Pluchea rubelliflora - 100%, <1% to <1%
Terminalia canescens - 100%, 10-25% to 25-33%
Eriachne tenuiculmis - 100%, <1% to <1%
Acacia pyrifolia (slender form) - 67%, <1% to <1%
Eragrostis tenellula - 67%, <1% to <1%
Cymbopogon ambiguus - 67%, <1% to <1%
Phyllanthus maderaspatensis var. angustifolius - 67%, <1% to <1%
Cyperus squarrosus - 67%, <1% to <1%
Indigastrum parviflorum - 67%, <1% to <1%
Euphorbia australis (West Angelas site 1103) - 67%, <1% to <1%
Ammannia baccifera - 67%, <1% to <1%
Amaranthus pallidiflorus - 67%, <1% to <1%
Crotalaria medicaginea - 67%, <1% to <1%
Trichodesma zeylanicum - 67%, <1% to <1%
Cassia glutinosa - 67%, <1% to <1%
Stemodia grossa - 67%, <1% to <1%

200 Floristic Group Level, Unit: 81,

Average Number of Species / Site: 23
Sites from: WANGEL - 1
Sites in Habitats: ds - 1
Portion of Dendrogram: (Area and Site on left)
WANGEL 0321 _____

Vegetation Description:
WANGEL 0321 Terminalia canescens low open woodland

Soil:
WANGEL 0321

Common Species: (Name - % of Sites, Range of Cover)
Eriachne tenuiculmis - 100%, <1% to <1%
Cyperus squarrosus - 100%, <1% to <1%
Tinospora smilacina - 100%, <1% to <1%
Cyperus vaginatus - 100%, <1% to <1%
Fimbristylis littoralis - 100%, <1% to <1%
Fimbristylis microcarya - 100%, <1% to <1%
Lipocarpha microcephala - 100%, <1% to <1%
Crotalaria novae-hollandiae subsp. novae-hollandiae - 100%, <1% to <1%
Tephrosia rosea var. clementii - 100%, <1% to <1%
Mollugo molluginis - 100%, <1% to <1%
Fimbristylis rara - 100%, <1% to <1%
Phyllanthus maderaspatensis var. angustifolius - 100%, <1% to <1%
Acacia arida - 100%, <1% to <1%
Flueggea virosa subsp. melanthesoides - 100%, <1% to <1%
Terminalia canescens - 100%, <1% to <1%
Ammannia baccifera - 100%, <1% to <1%
Euphorbia coghlanii - 100%, <1% to <1%
Lotus australis - 100%, <1% to <1%
Crotalaria medicaginea - 100%, <1% to <1%
Acacia coriacea - 100%, <1% to <1%

200 Floristic Group Level, Unit: 82,

Average Number of Species / Site: 24
Sites from: WANGEL - 2
Sites in Habitats: dnr - 1 ds - 1
Portion of Dendrogram: (Area and Site on left)
WANGEL 0337 _____
WANGEL 1141 _____|__

Vegetation Description:
WANGEL 0337 Terminalia canescens and Flueggia virosa ssp. melanthesioides low open woodland over Melaleuca linophylla open scrub over scattered sedgeland of Cyperus vaginatus over Triodia wiseana open hummock grassland
WANGEL 1141 Terminalia canescens and Acacia coriacea ssp. pendulans low woodland over Triodia wiseana and Triodia pungens open hummock grassland

Soil:
WANGEL 0337 Light brown gravelly sand~ very pebbly. Some flat outcrop. Some banks pebbly loam others outcrop
WANGEL 1141 Cobbly~ bouldery~ pebbly~ gravelly light red-brown sand

Common Species: (Name - % of Sites, Range of Cover)
Terminalia canescens - 100%, 5-10% to 10-25%

Acacia coriacea - 100%, <1% to 1-5%
Cynanchum floribundum - 100%, <1% to <1%
Stemodia grossa - 100%, <1% to <1%
Stylidium fluminense - 100%, <1% to <1%
Cyperus vaginatus - 100%, <1% to <1%
Solanum lasiophyllum - 100%, <1% to <1%
Triodia wiseana - 100%, 10-25% to 10-25%

200 Floristic Group Level, Unit: 83,

Average Number of Species / Site: 28
Sites from: WANGEL - 2
Sites in Habitats: ds - 2
Portion of Dendrogram: (Area and Site on left)
WANGEL 0126 _____
WANGEL 1119 _____|__

Vegetation Description:
WANGEL 0126 Eucalyptus victrix low woodland over Acacia coriacea ssp. pendulans~ Flueggia virosa ssp. melanthesioides high open shrubland over Triodia pungens very open hummock grassland
WANGEL 1119 Eucalyptus victrix low woodland with scattered low Acacia tumida and Acacia holosericea trees over low scattered Cajanus cinereus and Stemodia grossa shrubs over Triodia wiseana very open hummock grassland

Soil:
WANGEL 0126 Bed cobbly eith gravelly sandy red-brown loam. Some loam drifts (most small)
WANGEL 1119 Cobbly~ pebbly~ gravelly coarse brown sand

Common Species: (Name - % of Sites, Range of Cover)
Acacia coriacea - 100%, <1% to 1-5%
Euphorbia coghlanii - 100%, <1% to <1%
Phyllanthus maderaspatensis var. angustifolius - 100%, <1% to <1%
Bergia pedicellaris - 100%, <1% to <1%
Trichodesma zeylanicum - 100%, <1% to <1%
Flueggea virosa subsp. melanthesoides - 100%, <1% to 1-5%
Cyperus vaginatus - 100%, <1% to <1%
Stemodia grossa - 100%, <1% to <1%
Cymbopogon ambiguus - 100%, <1% to <1%
Eucalyptus victrix - 100%, 25-33% to 25-33%

200 Floristic Group Level, Unit: 84,

Average Number of Species / Site: 32
Sites from: WANGEL - 4
Sites in Habitats: ds - 4
Portion of Dendrogram: (Area and Site on left)
WANGEL 1085 ___
WANGEL 1087 __|_____
WANGEL 1097 _____ |
WANGEL 1103 _____|___|___

Vegetation Description:
WANGEL 1085 Eucalyptus victrix and Terminalia canescens low woodland over Eriachne tenuiculmis and *Cenchrus echinatus very open grassland with scattered patches of Cyperus vaginatus
WANGEL 1087 Terminalia canescens low openwoodland over Iseilema vaginiflorum~ Eriachne tenuiculmis~ Eriachne sp._aff._festucacea and *Cenchrus echinatus very open tussock grassland

WANGEL 1097 Terminalia canescens low open woodland over a mosaic of Eriachne tenuiculmis and Eriachne sp._aff._festucacea grassland~ Triodia wiseana hummock grassland and Cyperus vaginatus sedgeland
WANGEL 1103 Mixed Eucalyptus victrix~ Terminalia canescens and Acacia coriacea ssp. pendulans low open woodland over Stemodia grossa low shrubs over Eriachne tenuiculmis/Eriachne sp._aff._festucacea open to very open tussock grassland with scattered Cyperus vaginatu

Soil:
WANGEL 1085 Lower slopes light brown sandy loam. Bed pebbly~ cobbly coarse light brown sand. Some boulders
WANGEL 1087 Lower slopes light brown sandy loam. Bed pebbly~ cobbly coarse light brown sand. Some boulders
WANGEL 1097 Has quite a lot of outcrop (smooth or square fractured)
WANGEL 1103 Gravelly~ pebbly~ cobbly~ bouldery coarse brown sand. Has seepage in places

Common Species: (Name - % of Sites, Range of Cover)
Eriachne tenuiculmis - 100%, 1-5% to 5-10%
Cyperus vaginatus - 100%, <1% to 1-5%
Terminalia canescens - 100%, 5-10% to 10-25%
Acacia coriacea - 100%, <1% to 5-10%
Pluchea rubelliflora - 100%, <1% to <1%
Eriachne sp. aff. festucacea - 100%, <1% to 1-5%
Phyllanthus maderaspatensis var. angustifolius - 100%, <1% to <1%
Stemodia grossa - 100%, <1% to 5-10%
Flueggea virosa subsp. melanthesoides - 100%, <1% to <1%
Sesbania cannabina - 100%, <1% to <1%
Acacia pyrifolia (slender form) - 75%, <1% to <1%
Centipeda minima - 75%, <1% to <1%
Acacia holosericea - 75%, <1% to <1%
Eragrostis cumingii - 75%, <1% to <1%
Pterocaulon sphacelatum - 75%, <1% to <1%
Eucalyptus victrix - 75%, <1% to 10-25%

200 Floristic Group Level, Unit: 85,

Average Number of Species / Site: 55
Sites from: WANGEL - 2
Sites in Habitats: ds - 2
Portion of Dendrogram: (Area and Site on left)
WANGEL 0434 _____
WANGEL 0438 _____|_____

Vegetation Description:
WANGEL 0434 Corymbia hamersleyana low open woodland over Acacia tumida~ Acacia coriacea ssp. pendulans and Acacia holosericea high shrubland over Acacia pyrifolia (slender form) scattered shrubs over Triodia wiseana open hummock grassland over Eriachne tenuiculmis o
WANGEL 0438 Corymbia hamersleyana and Flueggia virosa ssp. melanthesioides low woodland over Acacia tumida~ Acacia coriacea ssp. pendulans and Acacia farnesiana open scrub over Melaleuca linophylla open shrubland over scattered sedgeland of Cyperus vaginatus over Tr

Soil:
WANGEL 0434 Pebbly/cobbly/gravelly sand amongst boulders
WANGEL 0438 Bed very variable~ from jumbled boulders to gravelly coarse brown sand. Some seepage from spur into bank. Banks variable from boulder slopes to brown loam

Common Species: (Name - % of Sites, Range of Cover)
Indigofera monophylla (grey leaflet form) - 100%, <1% to <1%
Acacia coriacea - 100%, 5-10% to 5-10%
Phyllanthus maderaspatensis var. angustifolius - 100%, <1% to <1%
Malvastrum americanum - 100%, <1% to <1%
Ehretia saligna var. saligna - 100%, <1% to <1%
Terminalia canescens - 100%, <1% to <1%
Flueggea virosa subsp. melanthesoides - 100%, <1% to 1-5%
Eragrostis tenellula - 100%, <1% to <1%
Euphorbia coghlanii - 100%, <1% to <1%
Tephrosia supina - 100%, <1% to <1%
Sesbania cannabina - 100%, <1% to <1%
Eragrostis cumingii - 100%, <1% to <1%
Solanum diversiflorum - 100%, <1% to <1%
Acacia pyrifolia (slender form) - 100%, <1% to 1-5%
Melaleuca linophylla - 100%, <1% to 5-10%
Cassytha capillaris - 100%, <1% to <1%
Indigofera colutea - 100%, <1% to <1%
Acacia holosericea - 100%, <1% to 1-5%
Paraneurachne muelleri - 100%, <1% to <1%
Triodia wiseana - 100%, 5-10% to 10-25%

50 Group Level, Member: 16,

Average Number of Species / Site: 11
Sites from: WANGEL - 1
Sites in Habitats: d - 1

Common Species: (Name - % of Sites, Range of Cover)
Terminalia canescens - 100%, <1% to <1%
Ipomoea muelleri - 100%, <1% to <1%
Eriachne tenuiculmis - 100%, <1% to <1%
Marsilea exarata - 100%, <1% to <1%
Waltheria indica - 100%, <1% to <1%
Trichosanthes cucumerina - 100%, <1% to <1%
Lipocarpha microcephala - 100%, <1% to <1%
Ptilotus incanus var. elongatus - 100%, <1% to <1%
Operculina aequisepala - 100%, <1% to <1%
Ehretia saligna var. saligna - 100%, <1% to <1%
Stemodia grossa - 100%, <1% to <1%

200 Floristic Group Level, Unit: 86,

Average Number of Species / Site: 11
Sites from: WANGEL - 1
Sites in Habitats: d - 1
Portion of Dendrogram: (Area and Site on left)
WANGEL 0030 _____

Vegetation Description:
WANGEL 0030 Scattered low trees of Terminalia canescens over scattered shrubs of Ehretia saligna over scattered Eriachne tenuiculmis tussocks

Soil:
WANGEL 0030

Common Species: (Name - % of Sites, Range of Cover)
Stemodia grossa - 100%, <1% to <1%
Terminalia canescens - 100%, <1% to <1%
Operculina aequisepala - 100%, <1% to <1%
Ipomoea muelleri - 100%, <1% to <1%
Marsilea exarata - 100%, <1% to <1%
Eriachne tenuiculmis - 100%, <1% to <1%
Trichosanthes cucumerina - 100%, <1% to <1%
Ptilotus incanus var. elongatus - 100%, <1% to <1%
Ehretia saligna var. saligna - 100%, <1% to <1%
Waltheria indica - 100%, <1% to <1%
Lipocarpha microcephala - 100%, <1% to <1%

50 Group Level, Member: 17,

Average Number of Species / Site: 19
Sites from: WANGEL - 2
Sites in Habitats: dap - 1 scs - 1

Common Species: (Name - % of Sites, Range of Cover)
Corymbia hamersleyana - 100%, <1% to 1-5%
Triodia wiseana - 100%, <1% to <1%
Stemodia grossa - 100%, <1% to <1%
Acacia pyrifolia (slender form) - 100%, <1% to <1%
Acacia bivenosa - 100%, 5-10% to 25-33%
Cleome viscosa - 50%, <1% to <1%
Peplidium sp. E (Flora of Australia) - 50%, 5-10% to 5-10%
Eriachne tenuiculmis - 50%, <1% to <1%
Cenchrus echinatus - 50%, <1% to <1%
Sporobolus australasicus - 50%, <1% to <1%
Triodia longiceps - 50%, 25-33% to 25-33%
Cenchrus ciliaris - 50%, <1% to <1%
Fimbristylis elegans - 50%, 33-50% to 33-50%
Fimbristylis littoralis - 50%, 33-50% to 33-50%
Ammannia baccifera - 50%, <1% to <1%
Fimbristylis rara - 50%, <1% to <1%
Portulaca pilosa - 50%, <1% to <1%
Acacia arida - 50%, <1% to <1%
Cassia notabilis - 50%, <1% to <1%
Cassia oligophylla - 50%, <1% to <1%

200 Floristic Group Level, Unit: 87,

Average Number of Species / Site: 26
Sites from: WANGEL - 1
Sites in Habitats: dap - 1
Portion of Dendrogram: (Area and Site on left)
WANGEL 0087 _____

Vegetation Description:
WANGEL 0087 Eucalyptus victrix~ Corymbia hamersleyana low open woodland over Acacia bivenosa high shrubland over Fimbristylis littoralis~ Fimbristylis elegans sedgeland to closed segeland with Peplidium sp._E (F of A) very annual open herbland

Soil:
WANGEL 0087 Grey-brown loam

Common Species: (Name - % of Sites, Range of Cover)
Peplidium sp. E (Flora of Australia) - 100%, 5-10% to 5-10%
Acacia pyrifolia (slender form) - 100%, <1% to <1%
Cenchrus ciliaris - 100%, <1% to <1%
Sporobolus australasicus - 100%, <1% to <1%
Cyperus difformis - 100%, <1% to <1%
Cyperus squarrosus - 100%, <1% to <1%
Fimbristylis elegans - 100%, 33-50% to 33-50%
Fimbristylis rara - 100%, <1% to <1%
Cleome viscosa - 100%, <1% to <1%
Cenchrus echinatus - 100%, <1% to <1%
Cassia notabilis - 100%, <1% to <1%
Acacia bivenosa - 100%, 25-33% to 25-33%
Portulaca pilosa - 100%, <1% to <1%

Trichodesma zeylanicum - 100%, <1% to <1%
Triodia wiseana - 100%, <1% to <1%
Cassia oligophylla - 100%, <1% to <1%
Sesbania cannabina - 100%, <1% to <1%
Ammannia baccifera - 100%, <1% to <1%
Solanum diversiflorum - 100%, <1% to <1%
Stemodia grossa - 100%, <1% to <1%

200 Floristic Group Level, Unit: 88,

Average Number of Species / Site: 12
Sites from: WANGEL - 1
Sites in Habitats: scs - 1
Portion of Dendrogram: (Area and Site on left)
WANGEL 1143 _____

Vegetation Description:
WANGEL 1143 Acacia bivenosa shrubland over Triodia longiceps hummock grassland

Soil:
WANGEL 1143 Cobbly~ gravelly~ pebbly brownish-grey loam. Calcrete pebbles part of surface. Some seepage (dry now)

Common Species: (Name - % of Sites, Range of Cover)
Corymbia hamersleyana - 100%, <1% to <1%
Triodia wiseana - 100%, <1% to <1%
Acacia arida - 100%, <1% to <1%
Acacia pyrifolia (slender form) - 100%, <1% to <1%
Eriachne tenuiculmis - 100%, <1% to <1%
Triodia longiceps - 100%, 25-33% to 25-33%
Centaurium spicatum - 100%, <1% to <1%
Heliotropium tenuifolium - 100%, <1% to <1%
Pluchea rubelliflora - 100%, <1% to <1%
Acacia bivenosa - 100%, 5-10% to 5-10%
Stemodia grossa - 100%, <1% to <1%
Fimbristylis cephalophora - 100%, <1% to <1%

50 Group Level, Member: 18,

Average Number of Species / Site: 21
Sites from: WANGEL - 2 BURPEN - 1
Sites in Habitats: d - 1 dn - 1 ds - 1

Common Species: (Name - % of Sites, Range of Cover)
Pluchea rubelliflora - 100%, <1% to 10-25%
Cyperus vaginatus - 100%, 5-10% to 33-50%
Schoenus falcatus - 100%, <1% to 50-70%
Ammannia baccifera - 100%, <1% to <1%
Stylidium fluminense - 100%, <1% to 25-33%
Lobelia quadrangularis - 67%, <1% to <1%
Fimbristylis cephalophora - 67%, <1% to <1%
Eriachne tenuiculmis - 67%, 1-5% to 1-5%
Ludwigia perennis - 67%, <1% to <1%
Sesbania cannabina - 67%, <1% to <1%
Stemodia grossa - 67%, 5-10% to 25-33%

200 Floristic Group Level, Unit: 89,

Average Number of Species / Site: 23
Sites from: WANGEL - 2
Sites in Habitats: d - 1 dn - 1
Portion of Dendrogram: (Area and Site on left)
WANGEL 1117 _____
WANGEL 1145 _____|_

Vegetation Description:
WANGEL 1117 Schoenus falcatus~ Eriachne sp._aff._festucacea~ Eriachne benthamii and Eriachne tenuiculmis open tussock grassland with Cyperus vaginatus open sedgeland and Stemodia grossa very open herbland
WANGEL 1145 Scattered Acacia bivenosa tall shrubs over Cyperus vaginatus open sedgeland with scattered Eriachne tenuiculmis perennial tussock grassland

Soil:
WANGEL 1117
WANGEL 1145 Brown loam

Common Species: (Name - % of Sites, Range of Cover)
Pluchea rubelliflora - 100%, <1% to <1%
Eriachne tenuiculmis - 100%, 1-5% to 1-5%
Ammannia baccifera - 100%, <1% to <1%
Cyperus vaginatus - 100%, 5-10% to 10-25%
Fimbristylis cephalophora - 100%, <1% to <1%
Stylidium fluminense - 100%, <1% to <1%
Lobelia quadrangularis - 100%, <1% to <1%
Ludwigia perennis - 100%, <1% to <1%
Schoenus falcatus - 100%, <1% to 5-10%

200 Floristic Group Level, Unit: 90,

Average Number of Species / Site: 19
Sites from: BURPEN - 1
Sites in Habitats: ds - 1
Portion of Dendrogram: (Area and Site on left)
BURPEN B233 _____

Vegetation Description:
BURPEN B233 Cyperus vaginatus, Schoenus falcatus, Fimbristylis rara, Schoenoplectus litoralis, Eragrostis sp. Mt Montagu (MET 15246) sedge/tussock grassland with Stemodia grossa, Pluchea rubelliflora, Stylidium fluminense, Peplidium sp. E (Flora of Australia) herblan

Soil:
BURPEN B233 Grey alluvial.

Common Species: (Name - % of Sites, Range of Cover)
Triodia angusta (Burrup Form) - 100%, <1% to <1%
Pluchea rubelliflora - 100%, 10-25% to 10-25%
Acacia coriacea - 100%, <1% to <1%
Peplidium sp. E (Flora of Australia) - 100%, 33-50% to 33-50%
Eragrostis sp. Mt Montagu (MET 15 246) - 100%, 33-50% to 33-50%
Cyperus vaginatus - 100%, 33-50% to 33-50%
Schoenoplectus litoralis - 100%, 10-25% to 10-25%
Acacia ampliceps - 100%, <1% to <1%
Schoenus falcatus - 100%, 50-70% to 50-70%
Adriana tomentosa - 100%, <1% to <1%
Sesbania cannabina - 100%, <1% to <1%

Ammannia baccifera - 100%, <1% to <1%
Eleocharis geniculata - 100%, <1% to <1%
Stemodia grossa - 100%, 25-33% to 25-33%
Stylidium fluminense - 100%, 25-33% to 25-33%
Flaveria australasica - 100%, <1% to <1%
Pluchea dentex - 100%, <1% to <1%
Fimbristylis rara - 100%, 33-50% to 33-50%
Swainsona pterostylis - 100%, <1% to <1%

50 Group Level, Member: 19,

Average Number of Species / Site: 7
Sites from: WANGEL - 1
Sites in Habitats: p - 1

Common Species: (Name - % of Sites, Range of Cover)
Cleome oxalidea - 100%, <1% to <1%
Grevillea pyramidalis - 100%, <1% to <1%
Oldenlandia sp. Mt Montagu (MET 15 027) - 100%, <1% to <1%
Triodia angusta (Burrup Form) - 100%, <1% to <1%
Eragrostis dielsii - 100%, <1% to <1%
Acacia xiphophylla - 100%, <1% to <1%
Indigofera trita - 100%, <1% to <1%

200 Floristic Group Level, Unit: 91,

Average Number of Species / Site: 7
Sites from: WANGEL - 1
Sites in Habitats: p - 1
Portion of Dendrogram: (Area and Site on left)
WANGEL 0026 _____

Vegetation Description:
WANGEL 0026 Mosaic of bare areas and Triodia angusta hummock grassland

Soil:
WANGEL 0026 Has large bare areas of pebble surface over pale reddish brown clay

Common Species: (Name - % of Sites, Range of Cover)
Grevillea pyramidalis - 100%, <1% to <1%
Oldenlandia sp. Mt Montagu (MET 15 027) - 100%, <1% to <1%
Cleome oxalidea - 100%, <1% to <1%
Indigofera trita - 100%, <1% to <1%
Triodia angusta (Burrup Form) - 100%, <1% to <1%
Acacia xiphophylla - 100%, <1% to <1%
Eragrostis dielsii - 100%, <1% to <1%

50 Group Level, Member: 20,

Average Number of Species / Site: 10
Sites from: WANGEL - 1
Sites in Habitats: scs - 1

Common Species: (Name - % of Sites, Range of Cover)
Salsola kali - 100%, <1% to <1%
Iseilema aff. fragile - 100%, <1% to <1%
Streptoglossa bubakii - 100%, <1% to <1%
Aristida latifolia - 100%, <1% to <1%
Paspalidium clementii - 100%, <1% to <1%
Neptunia dimorphantha - 100%, <1% to <1%
Sida fibulifera - 100%, <1% to <1%
Indigofera colutea - 100%, <1% to <1%
Enneapogon caerulescens var. caerulescens - 100%, <1% to <1%
Acacia xiphophylla - 100%, <1% to <1%

200 Floristic Group Level, Unit: 92,

Average Number of Species / Site: 10
Sites from: WANGEL - 1
Sites in Habitats: scs - 1
Portion of Dendrogram: (Area and Site on left)
WANGEL 0596 _____

Vegetation Description:
WANGEL 0596 Neptunia dimorphantha and Sida fibulifera low open heath

Soil:
WANGEL 0596 Loose red-brown pebbly cracking clay with pebble surface

Common Species: (Name - % of Sites, Range of Cover)
Indigofera colutea - 100%, <1% to <1%
Acacia xiphophylla - 100%, <1% to <1%
Enneapogon caerulescens var. caerulescens - 100%, <1% to <1%
Iseilema aff. fragile - 100%, <1% to <1%
Aristida latifolia - 100%, <1% to <1%
Salsola kali - 100%, <1% to <1%
Neptunia dimorphantha - 100%, <1% to <1%
Streptoglossa bubakii - 100%, <1% to <1%
Sida fibulifera - 100%, <1% to <1%
Paspalidium clementii - 100%, <1% to <1%

50 Group Level, Member: 21,

Average Number of Species / Site: 13
Sites from: WANGEL - 7
Sites in Habitats: sl - 4 sc - 2 scs - 1

Common Species: (Name - % of Sites, Range of Cover)
Sida fibulifera - 100%, <1% to 25-33%
Phyllanthus maderaspatensis var. angustifolius - 71%, <1% to <1%
Cassia notabilis - 71%, <1% to <1%
Ptilotus gomphrenoides var. gomphrenoides - 57%, <1% to <1%
Stemodia kingii - 57%, <1% to <1%
Mukia sp.D Flora of Australia(A.A.Mitchell PRP 1121) - 57%, <1% to <1%
Cleome viscosa - 57%, <1% to <1%
Corchorus tridens - 57%, <1% to <1%
Brachyachne convergens - 43%, <1% to <1%
Heliotropium crispatum - 43%, <1% to <1%
Streptoglossa bubakii - 43%, <1% to 5-10%
Indigastrum parviflorum - 43%, <1% to <1%
Crotalaria dissitiflora subsp. benthamiana - 43%, <1% to 5-10%

200 Floristic Group Level, Unit: 93,

Average Number of Species / Site: 19
Sites from: WANGEL - 3
Sites in Habitats: sl - 2 sc - 1
Portion of Dendrogram: (Area and Site on left)
WANGEL 0034 _____
WANGEL 0601 _____|_____
WANGEL 0597A _____|_

Vegetation Description:
WANGEL 0034 Triodia wiseana open hummock grassland with Crotalaria benthamiana~ Vigna lanceolata var. latifolia low open shrubland
WANGEL 0601 Sida fibulifera and Crotalaria benthamiana low open shrubland over scattered herbland of Euphorbia sp._Harding (MET 15 683)
WANGEL 0597A Low scattered shrubs of Sida fibulifera over scattered annual grass of Brachyachne convergens

Soil:
WANGEL 0034 Red-brown cracking clay/loam~ few pebbles
WANGEL 0601 Very large cracking clay patch (brown)
WANGEL 0597A

Common Species: (Name - % of Sites, Range of Cover)
Stemodia kingii - 100%, <1% to <1%
Sida fibulifera - 100%, <1% to 5-10%
Cassia notabilis - 100%, <1% to <1%
Corchorus tridens - 100%, <1% to <1%
Phyllanthus maderaspatensis var. angustifolius - 100%, <1% to <1%
Mukia sp.D Flora of Australia(A.A.Mitchell PRP 1121) - 100%, <1% to <1%
Indigastrum parviflorum - 67%, <1% to <1%
Streptoglossa adscendens - 67%, <1% to <1%
Cassia oligophylla - 67%, <1% to <1%
Cleome viscosa - 67%, <1% to <1%
Heliotropium crispatum - 67%, <1% to <1%
Salsola kali - 67%, <1% to <1%
Ptilotus gomphrenoides var. gomphrenoides - 67%, <1% to <1%
Crotalaria dissitiflora subsp. benthamiana - 67%, <1% to 5-10%

200 Floristic Group Level, Unit: 94,

Average Number of Species / Site: 10
Sites from: WANGEL - 3
Sites in Habitats: scs - 1 sl - 1 sc - 1
Portion of Dendrogram: (Area and Site on left)
WANGEL 0081B _____
WANGEL 0564C _____|__
WANGEL 0595A _____|__

Vegetation Description:
WANGEL 0081B Sida fibulifera~ Crotalaria benthamiana low shrubland
WANGEL 0564C Low open shrubland of Sida fibulifera~ Cassia notabilis and Bonamia media var. villosa over Brachyachne convergens annual tussock grassland over Streptoglossa bubakii~ Crotalaria medicaginea~ Phyllanthus maderaspatensis and Cleome viscosa open herbland
WANGEL 0595A Sida fibulifera low shrubland

Soil:
WANGEL 0081B The soil varies from clay with a few cobbles to a cobble/pebble mix on a sunken area (photo)
WANGEL 0564C Red-brown~ cobbly cracking clay
WANGEL 0595A Red-brown pebbly cracking clay

Common Species: (Name - % of Sites, Range of Cover)
Streptoglossa bubakii - 100%, <1% to 5-10%
Sida fibulifera - 100%, 5-10% to 25-33%
Brachyachne convergens - 67%, <1% to <1%
Phyllanthus maderaspatensis var. angustifolius - 67%, <1% to <1%
Cassia notabilis - 67%, <1% to <1%
Cleome viscosa - 67%, <1% to <1%

200 Floristic Group Level, Unit: 95,

Average Number of Species / Site: 6
Sites from: WANGEL - 1
Sites in Habitats: sl - 1
Portion of Dendrogram: (Area and Site on left)
WANGEL 0598A _____

Vegetation Description:
WANGEL 0598A Low scattered shrubs of Sida fibulifera~ Mukia sp. D (F of A) and Ipomoea muelleri over Dactyloctenium radulans annual grassland over scattered herbland of Ptilotus gomphrenoides

Soil:
WANGEL 0598A Red-brown deeply cracking clay

Common Species: (Name - % of Sites, Range of Cover)
Ptilotus gomphrenoides var. gomphrenoides - 100%, <1% to <1%
Dactyloctenium radulans - 100%, <1% to <1%
Mukia sp.D Flora of Australia(A.A.Mitchell PRP 1121) - 100%, <1% to <1%
Bulbostylis barbata - 100%, <1% to <1%
Ipomoea muelleri - 100%, <1% to <1%
Sida fibulifera - 100%, <1% to <1%

50 Group Level, Member: 22,

Average Number of Species / Site: 21
Sites from: WANGEL - 7
Sites in Habitats: scs - 7

Common Species: (Name - % of Sites, Range of Cover)
Brachyachne convergens - 100%, <1% to <1%
Phyllanthus maderaspatensis var. angustifolius - 100%, <1% to 1-5%
Streptoglossa bubakii - 100%, <1% to 5-10%
Aristida latifolia - 86%, <1% to 1-5%
Boerhavia paludosa - 86%, <1% to <1%
Heliotropium conocarpum - 71%, <1% to <1%
Desmodium muelleri - 71%, <1% to <1%
Ptilotus gomphrenoides var. gomphrenoides - 71%, <1% to <1%
Cleome viscosa - 71%, <1% to <1%
Indigofera trita - 71%, <1% to <1%
Sida fibulifera - 57%, <1% to <1%
Neptunia dimorphantha - 43%, <1% to 50-70%
Hibiscus aff. platychlamys (MET 15 067) - 43%, <1% to <1%
Vigna lanceolata var. latifolia - 43%, <1% to <1%
Rhynchosia sp. Barowanna Hill (MET 15 623) - 43%, <1% to <1%
Alysicarpus rugosus - 43%, <1% to <1%
Indigofera linifolia - 43%, <1% to <1%
Triodia wiseana - 43%, <1% to <1%
Cassia notabilis - 43%, <1% to <1%
Sida spinosa - 43%, <1% to <1%

200 Floristic Group Level, Unit: 96,

Average Number of Species / Site: 18
Sites from: WANGEL - 4
Sites in Habitats: scs - 4
Portion of Dendrogram: (Area and Site on left)
WANGEL 0431 _____
WANGEL 0463 _____ |
WANGEL 0464 _____|_____|_____
WANGEL 1093 _____|

Vegetation Description:
WANGEL 0431 Rhynchosia sp._Chichester (MET 15 225) low shrubland over Streptoglossa bubakii very open herbland over scattered tussock grassland of Aristida latifolia
WANGEL 0463 Very open herbland of Streptoglossa bubakii over Aristida latifolia very open tussock grassland
WANGEL 0464 Very open herbland of Phyllanthus maderaspatensis and Streptoglossa bubakii over scattered tussock grassland of Aristida latifolia
WANGEL 1093 Annual herbland dominated by Streptoglossa bubakii with scattered patches of the annual grass of Brachyachne convergens

Soil:
WANGEL 0431 Red-brown cobbly/pebbly cracking clay
WANGEL 0463 Very pebbly/cobbly~ red-brown loam with pebble/cobble surface
WANGEL 0464 Pebbly/cobbly~ red-brown loam
WANGEL 1093 Dull brown cracking clay with orange-brown surface~ quite cobbly~ pebbly

Common Species: (Name - % of Sites, Range of Cover)
Phyllanthus maderaspatensis var. angustifolius - 100%, <1% to 1-5%

Streptoglossa bubakii - 100%, <1% to 5-10%
Desmodium muelleri - 100%, <1% to <1%
Boerhavia paludosa - 100%, <1% to <1%
Aristida latifolia - 100%, <1% to 1-5%
Brachyachne convergens - 100%, <1% to <1%
Sida spinosa - 75%, <1% to <1%
Indigofera trita - 75%, <1% to <1%
Rhynchosia sp. Barowanna Hill (MET 15 623) - 75%, <1% to <1%
Ptilotus gomphrenoides var. gomphrenoides - 75%, <1% to <1%

200 Floristic Group Level, Unit: 97,

Average Number of Species / Site: 15
Sites from: WANGEL - 2
Sites in Habitats: scs - 2
Portion of Dendrogram: (Area and Site on left)
WANGEL 0441 ____
WANGEL 0442 ___|_____

Vegetation Description:
WANGEL 0441 Neptunia dimorphantha and Sida fibulifera low open heath
WANGEL 0442 Neptunia dimorphantha low open heath over Streptoglossa bubakii very open herbland

Soil:
WANGEL 0441 Gravelly~ pebbly red-brown
WANGEL 0442 Red-brown cracking clay~ pebbly/cobbly

Common Species: (Name - % of Sites, Range of Cover)
Indigofera linifolia - 100%, <1% to <1%
Hibiscus aff. platychlamys (MET 15 067) - 100%, <1% to <1%
Phyllanthus maderaspatensis var. angustifolius - 100%, <1% to <1%
Sida fibulifera - 100%, <1% to <1%
Acacia pyrifolia (bark not corky) - 100%, <1% to <1%
Boerhavia paludosa - 100%, <1% to <1%
Cleome viscosa - 100%, <1% to <1%
Neptunia dimorphantha - 100%, 33-50% to 50-70%
Heliotropium conocarpum - 100%, <1% to <1%
Brachyachne convergens - 100%, <1% to <1%
Streptoglossa bubakii - 100%, <1% to 1-5%

200 Floristic Group Level, Unit: 98,

Average Number of Species / Site: 42
Sites from: WANGEL - 1
Sites in Habitats: scs - 1
Portion of Dendrogram: (Area and Site on left)
WANGEL 1089 _____

Vegetation Description:
WANGEL 1089 Scattered tall Acacia inaequilatera shrubs over Indigofera trita annual herbfield

Soil:
WANGEL 1089 Dark red-brown cracking clay~ gravelly and large pebbles/cobbles

Common Species: (Name - % of Sites, Range of Cover)
Aristida contorta - 100%, <1% to <1%
Crotalaria juncea - 100%, <1% to <1%
Hakea lorea ssp. lorea - 100%, <1% to <1%

Vigna lanceolata var. latifolia - 100%, <1% to <1%
Sida aff. fibulifera 'var. L' - 100%, <1% to <1%
Rhynchosia sp. Chichester (MET 15 225) - 100%, <1% to <1%
Mukia aff. maderaspatana (2) (grey scabrid serrate) - 100%, <1% to <1%
Euphorbia sp. (site 1089) - 100%, <1% to <1%
Cassia oligophylla x helmsii - 100%, <1% to <1%
Ptilotus carinatus - 100%, <1% to <1%
Cleome viscosa - 100%, <1% to <1%
Boerhavia burbidgeana - 100%, <1% to <1%
Alternanthera nana - 100%, <1% to <1%
Bulbostylis barbata - 100%, <1% to <1%
Triodia wiseana - 100%, <1% to <1%
Brachyachne convergens - 100%, <1% to <1%
Aristida latifolia - 100%, <1% to <1%
Cassytha capillaris - 100%, <1% to <1%
Acacia inaequilatera - 100%, 1-5% to 1-5%
Acacia coriacea - 100%, <1% to <1%

50 Group Level, Member: 23,

Average Number of Species / Site: 10
Sites from: CAPPRE - 1 WANGEL - 1 Coastal: 1
Sites in Habitats: d - 1 lim - 1

Common Species: (Name - % of Sites, Range of Cover)
Typha domingensis - 100%, <1% to 10-25%
Schoenoplectus litoralis - 100%, 10-25% to 33-50%
Abutilon cryptopetalum - 50%, <1% to <1%
Melaleuca glomerata - 50%, <1% to <1%
Cenchrus ciliaris - 50%, <1% to <1%
Potamogeton tricarinatus - 50%, <1% to <1%
Sporobolus virginicus - 50%, 1-5% to 1-5%
Cyperus vaginatus - 50%, <1% to <1%
Eleocharis geniculata - 50%, <1% to <1%
Acacia ampliceps - 50%, 1-5% to 1-5%
Acacia coriacea - 50%, <1% to <1%
Melaleuca argentea - 50%, 1-5% to 1-5%
Halosarcia halocnemoides subsp. tenuis - 50%, <1% to <1%
Melaleuca linophylla - 50%, <1% to <1%
Samolus repens - 50%, <1% to <1%
Avicennia marina - 50%, 1-5% to 1-5%
Lobelia quadrangularis - 50%, <1% to <1%
Eucalyptus camaldulensis var. obtusa - 50%, 10-25% to 10-25%
Flaveria australasica - 50%, <1% to <1%

200 Floristic Group Level, Unit: 99,

Average Number of Species / Site: 13
Sites from: WANGEL - 1
Sites in Habitats: d - 1
Portion of Dendrogram: (Area and Site on left)
WANGEL 1151 _____

Vegetation Description:
WANGEL 1151 Eucalyptus camaldulensis var. obtusa woodland over scattered low Melaleuca argentea trees over Typha domingensis and Schoenoplectus litoralis open sedgeland

Soil:
WANGEL 1151

Common Species: (Name - % of Sites, Range of Cover)
Schoenoplectus litoralis - 100%, 10-25% to 10-25%
Cenchrus ciliaris - 100%, <1% to <1%
Acacia ampliceps - 100%, 1-5% to 1-5%
Eleocharis geniculata - 100%, <1% to <1%
Typha domingensis - 100%, 10-25% to 10-25%
Potamogeton tricarinatus - 100%, <1% to <1%
Cyperus vaginatus - 100%, <1% to <1%
Melaleuca argentea - 100%, 1-5% to 1-5%
Melaleuca linophylla - 100%, <1% to <1%
Acacia coriacea - 100%, <1% to <1%
Eucalyptus camaldulensis var. obtusa - 100%, 10-25% to 10-25%
Abutilon cryptopetalum - 100%, <1% to <1%
Lobelia quadrangularis - 100%, <1% to <1%

200 Floristic Group Level, Unit: 100,

Average Number of Species / Site: 8
Sites from: CAPPRE - 1 Coastal: 1
Sites in Habitats: lim - 1
Portion of Dendrogram: (Area and Site on left)
CAPPRE M113 _____

Vegetation Description:
CAPPRE M113 Avicennia marina tall open shrubland over patches of Schoenoplectus litoralis dense sedgeland.

Soil:
CAPPRE M113 Areas of flat calcrete with shallow pools containing black mud (with a thin red-brown surface).

Common Species: (Name - % of Sites, Range of Cover)
Flaveria australasica - 100%, <1% to <1%
Avicennia marina - 100%, 1-5% to 1-5%
Typha domingensis - 100%, <1% to <1%
Sporobolus virginicus - 100%, 1-5% to 1-5%
Samolus repens - 100%, <1% to <1%
Halosarcia halocnemoides subsp. tenuis - 100%, <1% to <1%
Melaleuca glomerata - 100%, <1% to <1%
Schoenoplectus litoralis - 100%, 33-50% to 33-50%

50 Group Level, Member: 24,

Average Number of Species / Site: 15
Sites from: CAPPRE - 3 Coastal: 3
Sites in Habitats: li - 3

Common Species: (Name - % of Sites, Range of Cover)
Halosarcia halocnemoides subsp. tenuis - 100%, <1% to 33-50%
Neobassia astrocarpa - 100%, <1% to 5-10%
Halosarcia indica subsp. leiostachya - 100%, <1% to 5-10%
Eragrostis falcata - 100%, <1% to 1-5%
Hemichroa diandra - 100%, 1-5% to 5-10%
Dysphania plantaginella - 67%, <1% to <1%
Halosarcia pruinosa - 67%, <1% to <1%
Frankenia ambita - 67%, <1% to 5-10%
Muellerolimon salicorniaceum - 67%, <1% to 5-10%
Avicennia marina - 67%, <1% to <1%
Cyperus bulbosus - 67%, <1% to <1%
Trianthema turgidifolia - 67%, <1% to <1%

200 Floristic Group Level, Unit: 101,

Average Number of Species / Site: 13
Sites from: CAPPRE - 2 Coastal: 2
Sites in Habitats: li - 2
Portion of Dendrogram: (Area and Site on left)
CAPPRE M036 ____
CAPPRE M074 ___|_____

Vegetation Description:
CAPPRE M036 Samphire.
CAPPRE M074 Samphire.

Soil:
CAPPRE M036 Coarse brown mud.
CAPPRE M074 Brown mud.

Common Species: (Name - % of Sites, Range of Cover)
Trianthema turgidifolia - 100%, <1% to <1%
Neobassia astrocarpa - 100%, <1% to <1%
Eragrostis falcata - 100%, <1% to <1%
Dysphania plantaginella - 100%, <1% to <1%
Halosarcia indica subsp. leiostachya - 100%, <1% to <1%
Frankenia ambita - 100%, <1% to 5-10%
Muellerolimon salicorniaceum - 100%, <1% to 5-10%
Avicennia marina - 100%, <1% to <1%
Halosarcia halocnemoides subsp. tenuis - 100%, 10-25% to 33-50%
Halosarcia pruinosa - 100%, <1% to <1%
Hemichroa diandra - 100%, 5-10% to 5-10%

200 Floristic Group Level, Unit: 102,

Average Number of Species / Site: 19
Sites from: CAPPRE - 1 Coastal: 1
Sites in Habitats: li - 1
Portion of Dendrogram: (Area and Site on left)
CAPPRE M061 _____

Vegetation Description:
CAPPRE M061 Frankenia / Lawrencia / Dissocarpus / Hemichroa / Sclerolaena / Samphire low open heath to low heath.

Soil:
CAPPRE M061 Pale brown (dun), silty fine sand; algal (blue-green) crust in lower parts.

Common Species: (Name - % of Sites, Range of Cover)
Eragrostis falcata - 100%, 1-5% to 1-5%
Dissocarpus paradoxus - 100%, 10-25% to 10-25%
Halosarcia indica subsp. leiostachya - 100%, 5-10% to 5-10%
Triodia angusta (Burrup Form) - 100%, <1% to <1%
Euphorbia aff. coghlanii (M61-11) - 100%, <1% to <1%
Dactyloctenium radulans - 100%, <1% to <1%
Xerochloa imberbis - 100%, <1% to <1%
Cyperus bulbosus - 100%, <1% to <1%
Neobassia astrocarpa - 100%, 5-10% to 5-10%
Lawrencia viridigrisea - 100%, 5-10% to 5-10%
Cenchrus ciliaris - 100%, <1% to <1%
Swainsona complanata - 100%, <1% to <1%
Swainsona kingii - 100%, <1% to <1%
Flaveria australasica - 100%, <1% to <1%
Dysphania rhadinostachya subsp. rhadinostachya - 100%, <1% to <1%
Hemichroa diandra - 100%, 1-5% to 1-5%
Frankenia pauciflora var. pauciflora - 100%, 5-10% to 5-10%
Halosarcia halocnemoides subsp. tenuis - 100%, <1% to <1%
Portulaca pilosa - 100%, <1% to <1%

50 Group Level, Member: 25,

Average Number of Species / Site: 14
Sites from: ANGELISL - 1 GIDISL - 1 BURPEN - 1 CAPPRE - 1 Coastal: 4
Sites in Habitats: du - 4

Common Species: (Name - % of Sites, Range of Cover)
Spinifex longifolius - 100%, 10-25% to 33-50%
Euphorbia tannensis subsp. eremophila (Burrup form) - 100%, <1% to 1-5%
Cleome viscosa - 75%, <1% to 1-5%
Salsola tragus - 75%, <1% to <1%
Acacia bivenosa - 75%, <1% to 5-10%
Ptilotus villosiflorus - 75%, <1% to <1%
Scaevola cunninghamii - 50%, <1% to 1-5%
Eulalia aurea - 50%, <1% to 5-10%
Triodia epactia (Burrup Form) - 50%, 1-5% to 5-10%
Threlkeldia diffusa - 50%, <1% to <1%
Whiteochloa airoides - 50%, 10-25% to 10-25%
Scaevola crassifolia - 50%, <1% to 10-25%

200 Floristic Group Level, Unit: 103,

Average Number of Species / Site: 14
Sites from: ANGELISL - 1 CAPPRE - 1 GIDISL - 1 Coastal: 3
Sites in Habitats: du - 3
Portion of Dendrogram: (Area and Site on left)
ANGELISL A129 _____
GIDISL G133 _____|_____
CAPPRE M068 _____|___

Vegetation Description:
ANGELISL A129 Tall Spinifex longifolia grassland (1 m, 30-70) over dwarf shrubland (<1 m, 10-30) Scaevola crassifolia. Scaevola crassifolia low shrubland over Spinifex longifolius, Whiteochloa airoides hummock grassland/grassland.
GIDISL G133 Euphorbia tannensis subsp. eremophila, Ipomoea costata scattered shrubs over Spinifex longifolius, Whiteochloa airoides, Eulalia aurea, Triodia epactia (Burrup Form) hummock/tussock grassland to closed grassland.
CAPPRE M068 Acacia bivenosa open shrubland over Spinifex longifolius grassland.

Soil:
ANGELISL A129 White, fine-medium beach sand with shell fragments.
GIDISL G133 White fine beach sand.
CAPPRE M068 Coarse brown sand.

Common Species: (Name - % of Sites, Range of Cover)
Salsola tragus - 100%, <1% to <1%
Acacia bivenosa - 100%, <1% to 5-10%
Spinifex longifolius - 100%, 33-50% to 33-50%
Euphorbia tannensis subsp. eremophila (Burrup form) - 100%, <1% to <1%
Eulalia aurea - 67%, <1% to 5-10%
Scaevola crassifolia - 67%, <1% to 10-25%
Scaevola cunninghamii - 67%, <1% to 1-5%
Threlkeldia diffusa - 67%, <1% to <1%
Whiteochloa airoides - 67%, 10-25% to 10-25%
Cleome viscosa - 67%, <1% to <1%
Ptilotus villosiflorus - 67%, <1% to <1%

200 Floristic Group Level, Unit: 104,

Average Number of Species / Site: 13
Sites from: BURPEN - 1 Coastal: 1
Sites in Habitats: du - 1
Portion of Dendrogram: (Area and Site on left)
BURPEN B159 _____

Vegetation Description:
BURPEN B159 Adriana, (Corchorus) scattered low shrubs over Spinifex longifolius, Triodia epactia (Burrup Form) open hummock grassland.

Soil:
BURPEN B159 Light brown/orange sand. Shell grit present.

Common Species: (Name - % of Sites, Range of Cover)
Euphorbia coghlanii - 100%, 1-5% to 1-5%
Spinifex longifolius - 100%, 10-25% to 10-25%
Corchorus walcottii - 100%, <1% to <1%
Ptilotus villosiflorus - 100%, <1% to <1%
Triodia epactia (Burrup Form) - 100%, 1-5% to 1-5%
Euphorbia tannensis subsp. eremophila (Burrup form) - 100%, 1-5% to 1-5%
Cleome sp. Burrup (B159-5) - 100%, <1% to <1%
Amaranthus pallidiflorus - 100%, 1-5% to 1-5%
Cassytha capillaris - 100%, 1-5% to 1-5%
Swainsona pterostylis - 100%, 1-5% to 1-5%
Pterocaulon sphacelatum - 100%, 1-5% to 1-5%
Adriana tomentosa - 100%, 10-25% to 10-25%
Cleome viscosa - 100%, 1-5% to 1-5%

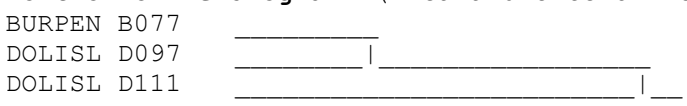
50 Group Level, Member: 26,

Average Number of Species / Site: 19
Sites from: CAPPRE - 3 DOLISL - 3 BURPEN - 1 GIDISL - 1 Coastal: 8
Sites in Habitats: du - 4 p - 3 dus - 1

Common Species: (Name - % of Sites, Range of Cover)
Cleome viscosa - 100%, <1% to 5-10%
Threlkeldia diffusa - 100%, <1% to 5-10%
Acacia bivenosa - 100%, 1-5% to 33-50%
Euphorbia tannensis subsp. eremophila (Burrup form) - 88%, <1% to 5-10%
Rhagodia preissii subsp. obovata - 88%, <1% to 10-25%
Adriana tomentosa - 75%, <1% to 10-25%
Swainsona formosa - 75%, <1% to 1-5%
Synaptantha tillaeacea var. tillaeacea - 62%, <1% to <1%
Scaevola spinescens - 62%, <1% to <1%
Acacia coriacea - 62%, 5-10% to 25-33%
Ptilotus exaltatus var. exaltatus - 50%, <1% to <1%

200 Floristic Group Level, Unit: 105,

Average Number of Species / Site: 13
Sites from: DOLISL - 2 BURPEN - 1 Coastal: 3
Sites in Habitats: p - 2 du - 1
Portion of Dendrogram: (Area and Site on left)



Vegetation Description:

BURPEN B077 Acacia bivenosa, Acacia coriacea Open Scrub over Rhagodia eremaea, Threlkeldia (?) Low Shrubland over Boerhavia Shrubland
DOLISL D097 Acacia bivenosa, Acacia coriacea, Rhagodia preissi subsp obovata shrubland to Open Heath over Trianthema turgidifolia, Enchylaeana tomentosa, Adriana tomentosa Low open shrubland over Euphorbia spp., Cleome viscosa open herbland.
DOLISL D111 Acacia bivenosa shrubland/high shrubland over Adriana tomentosa, Rhagodia eremea shrubland.

Soil:

BURPEN B077 Coarse brown sand with shell grit
DOLISL D097 Light fawn coloured sand, coarse, lots of shell grit.
DOLISL D111

Common Species: (Name - % of Sites, Range of Cover)

Cleome viscosa - 100%, <1% to 5-10%
Euphorbia tannensis subsp. eremophila (Burrup form) - 100%, <1% to 5-10%
Adriana tomentosa - 100%, 1-5% to 10-25%
Swainsona formosa - 100%, <1% to 1-5%
Threlkeldia diffusa - 100%, <1% to 5-10%
Acacia bivenosa - 100%, 10-25% to 33-50%
Synaptantha tillaeacea var. tillaeacea - 67%, <1% to <1%
Paspalidium tabulatum (Burrup Form) - 67%, <1% to 1-5%
Acacia coriacea - 67%, 5-10% to 10-25%
Rhagodia preissii subsp. obovata - 67%, 5-10% to 10-25%

200 Floristic Group Level, Unit: 106,

Average Number of Species / Site: 18
Sites from: GIDISL - 1 Coastal: 1
Sites in Habitats: p - 1
Portion of Dendrogram: (Area and Site on left)

Vegetation Description:

GIDISL G132 Acacia bivenosa, Rhagodia preissii subsp. Preissii open heath over Scaevola canescens, Threlkedia diffusa low open woodland over Triodia epactia (Burrup Form), Whiteochloa airoides hummock grassland/grassland.

Soil:

GIDISL G132 Fine white-grey sand.

Common Species: (Name - % of Sites, Range of Cover)

Heliotropium cunninghamii - 100%, <1% to <1%
Euphorbia tannensis subsp. eremophila (Burrup form) - 100%, <1% to <1%
Euphorbia sp. (G133-2) - 100%, <1% to <1%
Ptilotus exaltatus var. exaltatus - 100%, <1% to <1%
Amaranthus sp. (D111) - 100%, <1% to <1%
Eragrostis aff. eriopoda - 100%, <1% to <1%

Triraphis mollis - 100%, <1% to <1%
Whiteochloa airoides - 100%, 10-25% to 10-25%
Melhania sp. Fortescue (M33-22) - 100%, <1% to <1%
Triodia epactia (Burrup Form) - 100%, 33-50% to 33-50%
Cleome viscosa - 100%, <1% to <1%
Acacia bivenosa - 100%, 25-33% to 25-33%
Scaevola anchusifolia - 100%, <1% to <1%
Threlkeldia diffusa - 100%, <1% to <1%
Rhagodia preissii subsp. obovata - 100%, 5-10% to 5-10%
Synaptantha tillaeacea var. tillaeacea - 100%, <1% to <1%
Aerva javanica - 100%, <1% to <1%
Goodenia microptera - 100%, <1% to <1%

200 Floristic Group Level, Unit: 107,

Average Number of Species / Site: 24
Sites from: DOLISL - 1 Coastal: 1
Sites in Habitats: du - 1
Portion of Dendrogram: (Area and Site on left)
DOLISL D123 _____

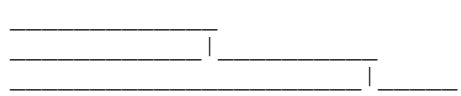
Vegetation Description:
DOLISL D123 Acacia bivenosa (Flueggea virosa) open heath over Scaevola spinescens, Adriana tomentosa scattered low shrubs over Triodia angusta (Burrup Form) hummock grassland.

Soil:
DOLISL D123 Coarse white-grey sand with large component of shell fragment.

Common Species: (Name - % of Sites, Range of Cover)
Indigofera trita - 100%, <1% to <1%
Adriana tomentosa - 100%, <1% to <1%
Euphorbia sp. (D105-1) - 100%, <1% to <1%
Boerhavia coccinea - 100%, <1% to <1%
Sesuvium portulacastrum - 100%, <1% to <1%
Cassytha capillaris - 100%, <1% to <1%
Flueggea virosa subsp. melanthesoides - 100%, <1% to <1%
Acacia bivenosa - 100%, 33-50% to 33-50%
Pterocaulon sphaeranthoides x sphacelatum - 100%, <1% to <1%
Cymbopogon ambiguus - 100%, <1% to <1%
Cleome viscosa - 100%, <1% to <1%
Rhagodia preissii subsp. obovata - 100%, <1% to <1%
Paspalidium clementii - 100%, <1% to <1%
Threlkeldia diffusa - 100%, <1% to <1%
Phyllanthus maderaspatensis var. angustifolius - 100%, <1% to <1%
Euphorbia coghlanii - 100%, 33-50% to 33-50%
Streptoglossa decurrens - 100%, <1% to <1%
Pterocaulon sphaeranthoides - 100%, <1% to <1%
Pterocaulon sphacelatum - 100%, <1% to <1%
Scaevola spinescens - 100%, <1% to <1%

200 Floristic Group Level, Unit: 108,

Average Number of Species / Site: 23
Sites from: CAPPRE - 3 Coastal: 3
Sites in Habitats: du - 2 dus - 1
Portion of Dendrogram: (Area and Site on left)



Vegetation Description:

CAPPRE M070 Acacia coriacea shrubland over patches of Buffel grass.
CAPPRE M072 Acacia coriacea, A. bivenosa open shrubland.
CAPPRE M100 Acacia coriacea, A. bivenosa shrubland over Triodia epactia hummock grassland.

Soil:

CAPPRE M070 Coarse brown sand.
CAPPRE M072 Coarse brown sand.
CAPPRE M100 Brown sand.

Common Species: (Name - % of Sites, Range of Cover)

Scaevola spinescens - 100%, <1% to <1%
Cleome viscosa - 100%, <1% to <1%
Acacia bivenosa - 100%, 1-5% to 5-10%
Acacia coriacea - 100%, 5-10% to 25-33%
Cenchrus ciliaris - 100%, <1% to 25-33%
Euphorbia tannensis subsp. eremophila (Burrup form) - 100%, <1% to <1%
Threlkeldia diffusa - 100%, <1% to <1%
Salsola tragus - 100%, <1% to <1%
Rhagodia preissii subsp. obovata - 100%, <1% to 1-5%
Triraphis mollis - 67%, <1% to <1%
Adriana tomentosa - 67%, <1% to <1%
Synaptantha tillaeacea var. tillaeacea - 67%, <1% to <1%
Swainsona formosa - 67%, <1% to <1%
Tribulus aff. occidentalis (M68.4) - 67%, <1% to <1%
Euphorbia schultzii - 67%, <1% to <1%
Heliotropium cunninghamii - 67%, <1% to <1%
Ptilotus exaltatus var. exaltatus - 67%, <1% to <1%
Enneapogon caerulescens var. occidentalis - 67%, <1% to <1%

50 Group Level, Member: 27,

Average Number of Species / Site: 15
Sites from: DOLISL - 1
Sites in Habitats: sl - 1

Common Species: (Name - % of Sites, Range of Cover)
Tribulus occidentalis - 100%, <1% to <1%
Acacia bivenosa - 100%, 5-10% to 5-10%
Indigofera trita - 100%, 5-10% to 5-10%
Swainsona pterostylis - 100%, 1-5% to 1-5%
Paspalidium tabulatum (Burrup Form) - 100%, 1-5% to 1-5%
Euphorbia tannensis subsp. eremophila (Burrup form) - 100%, 10-25% to 10-25%
Zaleya galericulata - 100%, 1-5% to 1-5%
Phyllanthus maderaspatensis var. angustifolius - 100%, 5-10% to 5-10%
Dicliptera armata - 100%, 5-10% to 5-10%
Malvastrum americanum - 100%, <1% to <1%
Cucumis melo - 100%, <1% to <1%
Crotalaria novae-hollandiae subsp. novae-hollandiae - 100%, 5-10% to 5-10%
Swainsona formosa - 100%, 5-10% to 5-10%
Acacia coriacea - 100%, 1-5% to 1-5%
Boerhavia repleta - 100%, >70% to >70%

200 Floristic Group Level, Unit: 109,

Average Number of Species / Site: 15
Sites from: DOLISL - 1
Sites in Habitats: sl - 1
Portion of Dendrogram: (Area and Site on left)
DOLISL D118 _____

Vegetation Description:
DOLISL D118 Acacia open shrubland over Boerhavia repleta, Euphorbia tannensis subsp. eremophila (Burrup Form), Phyllanthus maderaspatens, SWA for closed hummock annual herbland.

Soil:
DOLISL D118

Common Species: (Name - % of Sites, Range of Cover)
Cucumis melo - 100%, <1% to <1%
Acacia coriacea - 100%, 1-5% to 1-5%
Paspalidium tabulatum (Burrup Form) - 100%, 1-5% to 1-5%
Boerhavia repleta - 100%, >70% to >70%
Zaleya galericulata - 100%, 1-5% to 1-5%
Crotalaria novae-hollandiae subsp. novae-hollandiae - 100%, 5-10% to 5-10%
Acacia bivenosa - 100%, 5-10% to 5-10%
Indigofera trita - 100%, 5-10% to 5-10%
Malvastrum americanum - 100%, <1% to <1%
Swainsona formosa - 100%, 5-10% to 5-10%
Phyllanthus maderaspatensis var. angustifolius - 100%, 5-10% to 5-10%
Dicliptera armata - 100%, 5-10% to 5-10%
Swainsona pterostylis - 100%, 1-5% to 1-5%
Euphorbia tannensis subsp. eremophila (Burrup form) - 100%, 10-25% to 10-25%
Tribulus occidentalis - 100%, <1% to <1%

50 Group Level, Member: 28,

Average Number of Species / Site: 14
Sites from: DOLISL - 5 Coastal: 5
Sites in Habitats: du - 4 dub - 1

Common Species: (Name - % of Sites, Range of Cover)
Spinifex longifolius - 80%, <1% to <1%
Synaptantha tillaeacea var. tillaeacea - 80%, <1% to <1%
Rhagodia preissii subsp. obovata - 80%, <1% to <1%
Threlkeldia diffusa - 80%, <1% to <1%
Trianthema turgidifolia - 80%, <1% to <1%
Acacia coriacea - 80%, <1% to <1%
Acacia bivenosa - 80%, <1% to <1%
Swainsona pterostylis - 60%, <1% to <1%
Atriplex isatidea - 60%, <1% to <1%
Salsola tragus - 60%, <1% to <1%
Pterocaulon sphacelatum - 60%, <1% to <1%
Euphorbia sp. (D105-1) - 60%, <1% to <1%
Triodia epactia (Burrup Form) - 60%, <1% to <1%

200 Floristic Group Level, Unit: 110,

Average Number of Species / Site: 17
Sites from: DOLISL - 4 Coastal: 4
Sites in Habitats: du - 4
Portion of Dendrogram: (Area and Site on left)
DOLISL D104 ___
DOLISL D105 __|_____
DOLISL D121 _____|_____
DOLISL D122 _____|____

Vegetation Description:
DOLISL D104 Acacia bivenosa open shrubland over Spinifix longifolius, Swainsona pterostylis, Swainsona formosa open herb grassland.
DOLISL D105 Acacia bivenosa, Acacia coriacea, Atriplex isatidea open shrubland over Trianthema turgidifolia and Threlkeldia diffusa and low shrubland over Spinifex logifolius hummock grassland.
DOLISL D121 Acacia bivenosa, Rhagodia preissii subsp. Preissii shrubland over Spinifex longifolius hummock grassland.
DOLISL D122 Acacia coriacea, Acacia bivenosa, Rhagodia preissii subsp preissii open heath over scattered hummock grasses.

Soil:
DOLISL D104 Light-greyish medium coarse beach sand with shell grit.
DOLISL D105 Whitish grey medium coarse beach sand with shell fragments.
DOLISL D121 Medium-coarse grey/white beach sand with shell fragments.
DOLISL D122 White-grey beach sand with shell fragments.

Common Species: (Name - % of Sites, Range of Cover)
Threlkeldia diffusa - 100%, <1% to <1%
Acacia coriacea - 100%, <1% to <1%
Spinifex longifolius - 100%, <1% to <1%
Rhagodia preissii subsp. obovata - 100%, <1% to <1%
Acacia bivenosa - 100%, <1% to <1%
Swainsona pterostylis - 75%, <1% to <1%
Atriplex isatidea - 75%, <1% to <1%
Triodia epactia (Burrup Form) - 75%, <1% to <1%
Euphorbia sp. (D105-1) - 75%, <1% to <1%

Trianthema turgidifolia - 75%, <1% to <1%
Synaptantha tillaeacea var. tillaeacea - 75%, <1% to <1%
Salsola tragus - 75%, <1% to <1%

200 Floristic Group Level, Unit: 111,

Average Number of Species / Site: 6
Sites from: DOLISL - 1 Coastal: 1
Sites in Habitats: dub - 1
Portion of Dendrogram: (Area and Site on left)
DOLISL D112 _____

Vegetation Description:
DOLISL D112 Annual herbland of Swainsona formosa.

Soil:
DOLISL D112 Coarse sand of (surface) shellgrit, pale brown with white.

Common Species: (Name - % of Sites, Range of Cover)
Euphorbia tannensis subsp. eremophila (Burrup form) - 100%, <1% to <1%
Synaptantha tillaeacea var. tillaeacea - 100%, <1% to <1%
Trianthema turgidifolia - 100%, <1% to <1%
Swainsona formosa - 100%, 1-5% to 1-5%
Cleome viscosa - 100%, <1% to <1%
Pterocaulon sphacelatum - 100%, <1% to <1%

50 Group Level, Member: 29,

Average Number of Species / Site: 40
Sites from: CAPPRE - 2 ANGELISL - 1 Coastal: 2
Sites in Habitats: du - 2 sl - 1

Common Species: (Name - % of Sites, Range of Cover)
Indigofera trita - 100%, <1% to <1%
Evolvulus alsinoides var. villosicalyx - 100%, <1% to <1%
Cenchrus ciliaris - 100%, <1% to 10-25%
Aristida holathera var. holathera - 100%, <1% to <1%
Portulaca pilosa - 67%, <1% to <1%
Cleome viscosa - 67%, <1% to <1%
Indigofera linnaei - 67%, <1% to <1%
Pterocaulon sphaeranthoides - 67%, <1% to <1%
Crotalaria medicaginea (Burrup form; B65-11) - 67%, <1% to <1%
Bulbostylis barbata - 67%, <1% to <1%
Euphorbia tannensis subsp. eremophila (Burrup form) - 67%, <1% to <1%
Triodia epactia - 67%, 25-33% to 50-70%
Corchorus aff. walcotti (K.J. Atkins 570) - 67%, <1% to <1%
Trianthema turgidifolia - 67%, <1% to <1%
Trichodesma zeylanicum - 67%, <1% to <1%
Rhynchosia cf. minima - 67%, <1% to <1%
Acacia coriacea - 67%, <1% to <1%
Eragrostis eriopoda - 67%, <1% to <1%
Eriachne ovata - 67%, <1% to 5-10%
Ipomoea polymorpha - 67%, <1% to <1%

200 Floristic Group Level, Unit: 112,

Average Number of Species / Site: 35
Sites from: ANGELISL - 1
Sites in Habitats: sl - 1
Portion of Dendrogram: (Area and Site on left)
ANGELISL A141 _____

Vegetation Description:
ANGELISL A141 Stylobasium sphathulatum scattered shrubs to open shrubland over Sorghum plumosum grassland.

Soil:
ANGELISL A141 Fine brown sand, with numerous small holes

Common Species: (Name - % of Sites, Range of Cover)
Cleome viscosa - 100%, <1% to <1%
Melhania sp. Fortescue (M33-22) - 100%, <1% to <1%
Sida aff. fibulifera (D109) - 100%, <1% to <1%
Euphorbia tannensis subsp. eremophila (Burrup form) - 100%, <1% to <1%
Salsola tragus - 100%, <1% to <1%
Sida aff. fibulifera (oblong; MET 15 220) - 100%, <1% to <1%
Rhynchosia cf. minima - 100%, <1% to <1%
Cenchrus ciliaris - 100%, <1% to <1%
Enneapogon polyphyllus - 100%, <1% to <1%
Sorghum plumosum - 100%, 33-50% to 33-50%
Triraphis mollis - 100%, <1% to <1%
Whiteochloa airoides - 100%, <1% to <1%
Aerva javanica - 100%, <1% to <1%
Digitaria ctenantha - 100%, <1% to <1%
Boerhavia burbidgeana - 100%, <1% to <1%
Phyllanthus maderaspatensis var. angustifolius - 100%, <1% to <1%
Crotalaria medicaginea (Burrup form; B65-11) - 100%, <1% to <1%
Chrysopogon fallax - 100%, <1% to <1%
Setaria verticillata - 100%, <1% to <1%
Indigofera linnaei - 100%, <1% to <1%

200 Floristic Group Level, Unit: 113,

Average Number of Species / Site: 42
Sites from: CAPPRE - 2 Coastal: 2
Sites in Habitats: du - 2
Portion of Dendrogram: (Area and Site on left)
CAPPRE M063 _____
CAPPRE M069 _____|

Vegetation Description:
CAPPRE M063 Scattered Acacia coriacea / Atriplex bunburyana over Triodia pungens / *Cenchrus ciliaris mid-dense to dense grassland.
CAPPRE M069 Scattered tall shrubs of Acacia coriacea over Rhagodia eremaea / Gossypium australe / Adriana tomentosa open shrubland over Scaevola spinescens / Solanum lasiophyllum / Waltheria indica low open shrubland over Triodia pungens / Eriachne ovata / *Cenchrus

Soil:
CAPPRE M063 Very fine to fine pale brown sand with some silty material; thin black surface crust in places.
CAPPRE M069 Orange-brown (red) sand with hard-setting surface.

Common Species: (Name - % of Sites, Range of Cover)
Evolvulus alsinoides var. villosicalyx - 100%, <1% to <1%
Portulaca pilosa - 100%, <1% to <1%
Aristida holathera var. holathera - 100%, <1% to <1%
Trianthema turgidifolia - 100%, <1% to <1%
Pterocaulon sphaeranthoides - 100%, <1% to <1%
Corchorus aff. walcotti (K.J. Atkins 570) - 100%, <1% to <1%
Ipomoea polymorpha - 100%, <1% to <1%
Bulbostylis barbata - 100%, <1% to <1%
Eriachne ovata - 100%, <1% to 5-10%
Eragrostis eriopoda - 100%, <1% to <1%
Cenchrus ciliaris - 100%, 1-5% to 10-25%
Triodia epactia - 100%, 25-33% to 50-70%
Acacia coriacea - 100%, <1% to <1%
Indigofera trita - 100%, <1% to <1%

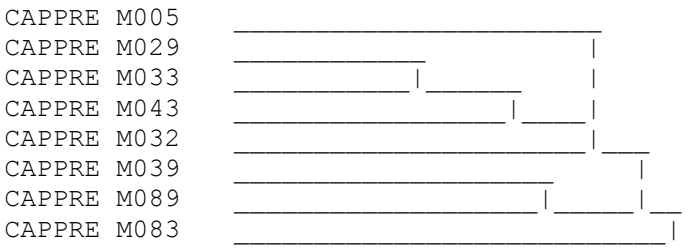
50 Group Level, Member: 30,

Average Number of Species / Site: 49
Sites from: CAPPRE - 11
Sites in Habitats: dn - 6 dns - 4 d - 1

Common Species: (Name - % of Sites, Range of Cover)
Cenchrus ciliaris - 100%, 5-10% to 50-70%
Solanum lasiophyllum - 91%, <1% to <1%
Triumfetta clementii - 91%, <1% to <1%
Phyllanthus maderaspatensis var. angustifolius - 91%, <1% to <1%
Rhynchosia cf. minima - 91%, <1% to <1%
Acacia coriacea - 91%, <1% to 10-25%
Malvastrum americanum - 82%, <1% to <1%
Evolvulus alsinoides var. villosicalyx - 82%, <1% to <1%
Hybanthus aurantiacus - 82%, <1% to <1%
Alternanthera nana - 82%, <1% to <1%
Acacia farnesiana - 82%, <1% to <1%
Pterocaulon sphacelatum - 82%, <1% to <1%
Leptopus decaisnei var. decaisnei - 73%, <1% to <1%
Goodenia forrestii - 73%, <1% to <1%
Ipomoea muelleri - 73%, <1% to 1-5%
Indigofera trita - 73%, <1% to 5-10%
Chrysopogon fallax - 73%, <1% to 50-70%
Solanum horridum - 64%, <1% to <1%
Trichodesma zeylanicum - 64%, <1% to <1%
Cenchrus setigerus - 64%, <1% to 5-10%

200 Floristic Group Level, Unit: 114,

Average Number of Species / Site: 47
Sites from: CAPPRE - 8
Sites in Habitats: dn - 4 dns - 3 d - 1
Portion of Dendrogram: (Area and Site on left)



Vegetation Description:

CAPPRE M005 Scattered patches of Corymbia hamersleyana over scattered patches of Acacia trachycarpa over *Cenchrus ciliaris mid-dense tussock grassland.

CAPPRE M029 Eucalyptus victrix low open woodland over Acacia coriacea tall open shrubland / low open woodland over scattered Acacia pyrifolia / A. bivenosa over *Cenchrus ciliaris, Triodia epactia, Themeda triandra, Cymbopogon ambiguus mid-dense grassland.

CAPPRE M033 Acacia coriacea tall shrubland to low open woodland with scattered low Erythrina vespertilio over *Cenchrus ciliaris, Triodia angusta and Themeda triandra mid-dense grassland.

CAPPRE M043 Eucalyptus victrix low woodland over Acacia coriacea tall open shrubland over scattered low shrubs of Abutilon cunninghamii over *Cenchrus ciliaris / Triodia angusta mid-dense to dense grassland.

CAPPRE M032 30-40% tall shrubs dominated by Acacia sclerosperma over dense grasses (primarily Themeda triandra and Buffel grass).

CAPPRE M039 Scattered Acacia coriacea over Acacia inaequilatera tall open shrubland over Acacia bivenosa open shrubland over *Cenchrus ciliaris / Triodia wiseana mid-dense grassland.

CAPPRE M089 Acacia coriacea tall shrubland over scattered Santalum lanceolatum over *Cenchrus ciliaris dense tussock grassland.

CAPPRE M083 Scattered low trees of Eucalyptus victrix over Acacia ancistrocarpa high open shrubland over Triodia wiseana hummock grassland with annual Sorghum grassland and annual Indigofera trita low open herbland.

Soil:

CAPPRE M005 Soil quite variable: gravelly / pebbly coarse sand in places, red-brown loamy soil in others; all with thin surface of red-brown clay loam from recent flood.

CAPPRE M029 Gravelly to cobbly red-brown loamy sand.

CAPPRE M033 Gravelly / pebbly red-brown sandy loam; cobbly / bouldery in places.

CAPPRE M043 Brown loam with some pebbles, particularly in centre of bed.

CAPPRE M032 Red clay.

CAPPRE M039 Brown sandy loam with black (blue-green) algal crust on surface.

CAPPRE M089 Light brown hard-setting loam

CAPPRE M083 Red-brown loam on banks and floodplain, pebbly in the bed.

Common Species: (Name - % of Sites, Range of Cover)

Rhynchosia cf. minima - 100%, <1% to <1%
Cenchrus ciliaris - 100%, 5-10% to 50-70%
Hybanthus aurantiacus - 88%, <1% to <1%
Phyllanthus maderaspatensis var. angustifolius - 88%, <1% to <1%
Malvastrum americanum - 88%, <1% to <1%
Pterocaulon sphacelatum - 88%, <1% to <1%

Alternanthera nana - 88%, <1% to <1%
Indigofera trita - 88%, <1% to 5-10%
Solanum lasiophyllum - 88%, <1% to <1%
Triumfetta clementii - 88%, <1% to <1%
Acacia coriacea - 88%, <1% to 10-25%
Evolvulus alsinoides var. villosicalyx - 88%, <1% to <1%
Goodenia forrestii - 75%, <1% to <1%
Ipomoea muelleri - 75%, <1% to 1-5%
Acacia bivenosa - 75%, <1% to 5-10%
Solanum horridum - 75%, <1% to <1%
Mukia aff. maderaspatana sp. F - 75%, <1% to <1%
Acacia farnesiana - 75%, <1% to <1%
Portulaca oleracea - 62%, <1% to <1%
Cleome viscosa - 62%, <1% to <1%

200 Floristic Group Level, Unit: 115,

Average Number of Species / Site: 45
Sites from: CAPPRE - 1
Sites in Habitats: dns - 1
Portion of Dendrogram: (Area and Site on left)
CAPPRE M025 _____

Vegetation Description:
CAPPRE M025 Eucalyptus victrix woodland over Acacia coriacea subsp. pendens low open woodland over *Cenchrus ciliaris mid-dense grassland.

Soil:
CAPPRE M025 Gravelly to cobbly, brown sandy loam.

Common Species: (Name - % of Sites, Range of Cover)
Themeda triandra - 100%, <1% to <1%
Achyranthes aspera - 100%, <1% to <1%
Alysicarpus rugosus - 100%, <1% to <1%
Sida aff. fibulifera (MET Site 1346) - 100%, <1% to <1%
Amaranthus aff. interruptus (MET 16,114) - 100%, <1% to <1%
Operculina aequisepala - 100%, <1% to <1%
Polycarpaea longiflora (White form, M13-7) - 100%, <1% to <1%
Cenchrus ciliaris - 100%, 25-33% to 25-33%
Cenchrus setigerus - 100%, <1% to <1%
Chrysopogon fallax - 100%, <1% to <1%
Triodia angusta (Burrup Form) - 100%, <1% to <1%
Santalum lanceolatum - 100%, <1% to <1%
Amaranthus aff. pallidiflorus (WAS1127) - 100%, <1% to <1%
Cassia oligophylla - 100%, <1% to <1%
Cleome viscosa - 100%, <1% to <1%
Commicarpus australis - 100%, <1% to <1%
Boerhavia burbidgeana - 100%, <1% to <1%
Aerva javanica - 100%, <1% to <1%
Acacia farnesiana - 100%, <1% to <1%
Acacia pyrifolia (slender, white) - 100%, <1% to <1%

200 Floristic Group Level, Unit: 116,

Average Number of Species / Site: 56
Sites from: CAPPRE - 2
Sites in Habitats: dn - 2
Portion of Dendrogram: (Area and Site on left)
CAPPRE M022 _____
CAPPRE M045 _____|_____

Vegetation Description:
CAPPRE M022 10-30% tall shrubs dominated by Acacia sclerosperma and Acacia coriacea over dense grasses dominated by Chrysopogon fallax.
CAPPRE M045 Acacia coriacea tall shrubland over *Cenchrus ciliaris / Eriachne benthamii dense tussock grassland.

Soil:
CAPPRE M022 Red clay loam.
CAPPRE M045 Light brown loam with some pebbles and small cobbles on surface; algal (blue-green) crust in places; also some areas of cracking clay.

Common Species: (Name - % of Sites, Range of Cover)
Acacia farnesiana - 100%, <1% to <1%
Cenchrus ciliaris - 100%, 5-10% to 25-33%
Triodia epactia - 100%, <1% to 1-5%
Phyllanthus maderaspatensis var. angustifolius - 100%, <1% to <1%
Leptopus decaisnei var. decaisnei - 100%, <1% to <1%
Dichanthium sericeum subsp. humilius - 100%, <1% to <1%
Rhynchosia cf. minima - 100%, <1% to <1%
Chrysopogon fallax - 100%, 1-5% to 50-70%
Sida spinosa - 100%, <1% to <1%
Cenchrus setigerus - 100%, 1-5% to 5-10%
Triumfetta clementii - 100%, <1% to <1%
Crotalaria medicaginea (Burrup form; B65-11) - 100%, <1% to <1%
Sporobolus australasicus - 100%, <1% to <1%
Malvastrum americanum - 100%, <1% to <1%
Bothriochloa ewartiana - 100%, <1% to 1-5%
Indigofera linifolia - 100%, <1% to <1%
Eragrostis xerophila - 100%, <1% to <1%
Eriachne benthamii - 100%, 5-10% to 33-50%
Evolvulus alsinoides var. villosicalyx - 100%, <1% to <1%
Pterocaulon sphacelatum - 100%, <1% to <1%

50 Group Level, Member: 31,

Average Number of Species / Site: 34
Sites from: CAPPRE - 2
Sites in Habitats: d - 1 dn - 1

Common Species: (Name - % of Sites, Range of Cover)
Solanum gabrielae - 100%, <1% to <1%
Acacia ampliceps - 100%, <1% to 10-25%
Malvastrum americanum - 100%, <1% to <1%
Corchorus tridens - 100%, <1% to <1%
Phyllanthus maderaspatensis var. angustifolius - 100%, <1% to <1%
Solanum lasiophyllum - 100%, <1% to <1%
Trianthema turgidifolia - 100%, <1% to <1%
Enchylaena tomentosa - 100%, <1% to <1%
Cenchrus ciliaris - 100%, <1% to <1%
Dactyloctenium radulans - 100%, <1% to <1%
Corchorus aff. walcotti (K.J. Atkins 570) - 100%, <1% to <1%
Abutilon cunninghamii - 100%, <1% to <1%
Triumfetta clementii - 100%, <1% to <1%
Ipomoea muelleri - 100%, <1% to <1%
Rhagodia eremaea - 50%, <1% to <1%
Cullen pogonocarpum - 50%, <1% to <1%
Swainsona kingii - 50%, <1% to <1%
Halosarcia pruinosa - 50%, 1-5% to 1-5%
Myoporum montanum - 50%, <1% to <1%
Ehretia saligna var. saligna - 50%, <1% to <1%

200 Floristic Group Level, Unit: 117,

Average Number of Species / Site: 39
Sites from: CAPPRE - 1
Sites in Habitats: dn - 1
Portion of Dendrogram: (Area and Site on left)
CAPPRE M067 _____

Vegetation Description:
CAPPRE M067 Acacia ampliceps open shrubland.

Soil:
CAPPRE M067 Light-mid brown fine sandy loam, pebbly to cobbly in places.

Common Species: (Name - % of Sites, Range of Cover)
Sporobolus virginicus - 100%, 10-25% to 10-25%
Dactyloctenium radulans - 100%, <1% to <1%
Cenchrus ciliaris - 100%, <1% to <1%
Triodia angusta (Burrup Form) - 100%, 1-5% to 1-5%
Sesbania cannabina - 100%, <1% to <1%
Dysphania plantaginella - 100%, <1% to <1%
Threlkeldia diffusa - 100%, <1% to <1%
Cyperus bulbosus - 100%, <1% to <1%
Corchorus aff. walcotti (K.J. Atkins 570) - 100%, <1% to <1%
Cassytha capillaris - 100%, <1% to <1%
Mukia aff. maderaspatana sp. F - 100%, <1% to <1%
Enchylaena tomentosa - 100%, <1% to <1%
Acacia ampliceps - 100%, 10-25% to 10-25%
Trianthema turgidifolia - 100%, <1% to <1%
Achyranthes aspera - 100%, <1% to <1%
Neobassia astrocarpa - 100%, 1-5% to 1-5%

Halosarcia pruinosa - 100%, 1-5% to 1-5%
Pterocaulon sphaeranthoides x sphacelatum - 100%, <1% to <1%
Evolvulus alsinoides var. villosicalyx - 100%, <1% to <1%
Amaranthus pallidiflorus - 100%, <1% to <1%

200 Floristic Group Level, Unit: 118,

Average Number of Species / Site: 29
Sites from: CAPPRE - 1
Sites in Habitats: d - 1
Portion of Dendrogram: (Area and Site on left)
CAPPRE M093 _____|

Vegetation Description:
CAPPRE M093 Open tall shrubland of Acacia coriacea and A. bivenosa over Triodia wiseana and *Cenchrus ciliaris.

Soil:
CAPPRE M093 Not recorded.

Common Species: (Name - % of Sites, Range of Cover)
Tephrosia rosea var. clementii - 100%, <1% to <1%
Paspalidium clementii - 100%, <1% to <1%
Corchorus aff. walcotti (K.J. Atkins 570) - 100%, <1% to <1%
Capparis spinosa var. nummularia - 100%, <1% to <1%
Cenchrus ciliaris - 100%, <1% to <1%
Dactyloctenium radulans - 100%, <1% to <1%
Corchorus aff. sidoides (KA204-10) - 100%, <1% to <1%
Triodia wiseana - 100%, <1% to <1%
Cyperus vaginatus - 100%, <1% to <1%
Enchylaena tomentosa - 100%, <1% to <1%
Trianthema turgidifolia - 100%, <1% to <1%
Tinospora smilacina - 100%, <1% to <1%
Cassia oligophylla x helmsii - 100%, <1% to <1%
Rhagodia eremaea - 100%, <1% to <1%
Ipomoea muelleri - 100%, <1% to <1%
Acacia pyrifolia (slender, white) - 100%, <1% to <1%
Solanum gabrielae - 100%, <1% to <1%
Acacia coriacea - 100%, <1% to <1%
Malvastrum americanum - 100%, <1% to <1%
Acacia bivenosa - 100%, <1% to <1%

50 Group Level, Member: 32,

Average Number of Species / Site: 32
Sites from: CAPPRE - 11 BURPEN - 1 KARHIL - 1 Coastal: 1
Sites in Habitats: rp - 10 rpb - 2 smr - 1

Common Species: (Name - % of Sites, Range of Cover)
Acacia coriacea - 100%, <1% to 5-10%
Cenchrus ciliaris - 100%, <1% to 50-70%
Gomphrena cunninghamii - 85%, <1% to <1%
Cymbopogon ambiguus - 85%, <1% to 5-10%
Enchylaena tomentosa - 77%, <1% to <1%
Trachymene aff. oleracea (B61) - 77%, <1% to <1%
Triumfetta clementii - 77%, <1% to <1%
Rhynchosia cf. minima - 77%, <1% to 10-25%
Trichodesma zeylanicum - 69%, <1% to <1%
Bidens bipinnata - 69%, <1% to <1%
Trichosanthes cucumerina - 69%, <1% to 1-5%
Portulaca oleracea - 62%, <1% to <1%
Cleome viscosa - 62%, <1% to <1%
Operculina aequisepala - 62%, <1% to 1-5%
Achyranthes aspera - 54%, <1% to 1-5%
Polycarpaea longiflora (White form, M13-7) - 54%, <1% to <1%
Nicotiana benthamiana - 54%, <1% to <1%
Ficus platypoda - 54%, <1% to 1-5%
Triodia wiseana - 54%, <1% to 1-5%
Eremophila longifolia - 54%, <1% to <1%

200 Floristic Group Level, Unit: 119,

Average Number of Species / Site: 13
Sites from: BURPEN - 1
Sites in Habitats: rp - 1
Portion of Dendrogram: (Area and Site on left)
BURPEN B049 _____

Vegetation Description:
BURPEN B049 Vegetation is mainly diffuse, not in clearly defined, densely vegetated pockets, with Cenchrus ciliaris dominant: Brachychiton acuminatus.
Low open woodland over Cenchrus ciliaris, Themeda sp. Burrup (B84) open grassland/tussock grassland with Rhynchosia

Soil:
BURPEN B049 Dark organic. Covers <10% of rockpile and is not conspicious

Common Species: (Name - % of Sites, Range of Cover)
Mukia maderaspatana - 100%, 1-5% to 1-5%
Aerva javanica - 100%, 1-5% to 1-5%
Acacia coriacea - 100%, <1% to <1%
Themeda sp. Burrup (B84) - 100%, 1-5% to 1-5%
Rhynchosia cf. minima - 100%, 10-25% to 10-25%
Cenchrus ciliaris - 100%, 10-25% to 10-25%
Rhagodia eremaea - 100%, <1% to <1%
Trachymene aff. oleracea (B61) - 100%, <1% to <1%
Ipomoea costata - 100%, <1% to <1%
Dicliptera armata - 100%, 1-5% to 1-5%
Brachychiton acuminatus - 100%, 5-10% to 5-10%
Cynanchum floribundum - 100%, <1% to <1%

Trichodesma zeylanicum - 100%, <1% to <1%

200 Floristic Group Level, Unit: 120,

Average Number of Species / Site: 32
Sites from: CAPPRE - 1 KARHIL - 1
Sites in Habitats: rp - 1 smr - 1
Portion of Dendrogram: (Area and Site on left)
KARHIL KH210 _____
CAPPRE M041   _____|_____

Vegetation Description:
KARHIL KH210 Flueggea virosa subsp. Melanthesoides, Ehretia saligna, Ficus platypoda, Acacia coriacea scattered tall shrubs o low trees over Rhagodia eremaea, Jasminum didymum scattered shrubs over Cenchrus ciliaris, Triodia epactia (Burrup Form), Themeda sp. Burrup (
CAPPRE M041   Acacia coriacea / Flueggia virosa subsp. melanthesioides open shrubland over Canavalia rosea / Passiflora foetida / Trichosanthes cucumerina low 'vineland'.

Soil:
KARHIL KH210 Brown silty loam (see KH205).
CAPPRE M041   Red-brown loam amongst cobbles and boulders.

Common Species: (Name - % of Sites, Range of Cover)
Trichodesma zeylanicum - 100%, <1% to <1%
Scaevola spinescens - 100%, <1% to <1%
Cymbopogon ambiguus - 100%, <1% to <1%
Trachymene aff. oleracea (B61) - 100%, <1% to <1%
Jasminum didymum subsp. lineare - 100%, <1% to <1%
Flueggea virosa subsp. melanthesoides - 100%, <1% to <1%
Capparis spinosa var. nummularia - 100%, <1% to <1%
Ficus opposita var. indecora - 100%, <1% to <1%
Enneapogon oblongus - 100%, <1% to <1%
Cenchrus ciliaris - 100%, 10-25% to 50-70%
Acacia bivenosa - 100%, <1% to <1%
Mukia maderaspatana - 100%, <1% to <1%
Rhagodia eremaea - 100%, <1% to <1%
Ficus platypoda - 100%, <1% to <1%
Trichosanthes cucumerina - 100%, <1% to 1-5%
Acacia coriacea - 100%, <1% to <1%

200 Floristic Group Level, Unit: 121,

Average Number of Species / Site: 39
Sites from: CAPPRE - 5
Sites in Habitats: rp - 3 rpb - 2
Portion of Dendrogram: (Area and Site on left)
CAPPRE M013   _____
CAPPRE M051   _____|
CAPPRE M053   _____||_____
CAPPRE M109   _____ |
CAPPRE M111   _____|___|_____

Vegetation Description:
CAPPRE M013   Scattered Ficus platypoda and Acacia coriacea subsp. pendens over herbs, vines and grasses.
CAPPRE M051   Acacia coriacea tall open shrubland over Cymbopogon ambiguus open tussock grassland with lianes of Operculina aequisepala and Trichosanthes cucumerina.

CAPPRE M053 Acacia coriacea tall open shrubland over Tephrosia aff. densa low open shrubland and Cymbopogon ambiguus grassland.
CAPPRE M109 Scattered Acacia coriacea, Ficus platypoda and Ehretia saligna tall shrubs.
CAPPRE M111 Scattered tall shrubs of Ehretia saligna, Ficus platypoda and Acacia coriacea over scattered shrubs of Eremophila longifolia and Capparis spinosa var. nummularia over *Cenchrus ciliaris / Triodia wiseana grassland with vines of Tinospora and Trichosanthes

Soil:
CAPPRE M013 Red-brown gravelly/cobbly loam amongst boulders; more clayey soil around base of boulder pile.
CAPPRE M051 Orange-brown pebbly loam.
CAPPRE M053 Red-brown gravelly / pebbly loam in places between rocks.
CAPPRE M109 Red-brown pebbly / cobbly loam.
CAPPRE M111

Common Species: (Name - % of Sites, Range of Cover)
Cenchrus ciliaris - 100%, <1% to 5-10%
Gomphrena cunninghamii - 100%, <1% to <1%
Trichosanthes cucumerina - 100%, <1% to 1-5%
Ficus platypoda - 100%, <1% to 1-5%
Bidens bipinnata - 100%, <1% to <1%
Nicotiana benthamiana - 100%, <1% to <1%
Cleome viscosa - 100%, <1% to <1%
Trachymene aff. oleracea (B61) - 100%, <1% to <1%
Acacia coriacea - 100%, <1% to 5-10%
Operculina aequisepala - 100%, <1% to 1-5%
Trichodesma zeylanicum - 80%, <1% to <1%
Boerhavia burbidgeana - 80%, <1% to <1%
Portulaca oleracea - 80%, <1% to <1%
Solanum gabrielae - 80%, <1% to <1%
Triodia wiseana - 80%, <1% to 1-5%
Enchylaena tomentosa - 80%, <1% to <1%
Cymbopogon ambiguus - 80%, <1% to 5-10%
Rhynchosia cf. minima - 80%, <1% to <1%
Triumfetta clementii - 80%, <1% to <1%
Bonamia media var. villosa - 60%, <1% to <1%

200 Floristic Group Level, Unit: 122,

Average Number of Species / Site: 28
Sites from: CAPPRE - 2
Sites in Habitats: rp - 2
Portion of Dendrogram: (Area and Site on left)
CAPPRE M062 _____
CAPPRE M091 _____|_____

Vegetation Description:
CAPPRE M062 Scattered tall shrubs over sparse grasses and herbs.
CAPPRE M091 Scattered Acacia coriacea shrubs over Canavalia rosea vines.

Soil:
CAPPRE M062 Iron-cemented alluvium / colluvium (MET).
CAPPRE M091 Red-brown pebbly / gravelly loam amongst boulders.

Common Species: (Name - % of Sites, Range of Cover)
Rhagodia eremaea - 100%, <1% to <1%
Cymbopogon ambiguus - 100%, <1% to <1%
Polycarpaea longiflora (White form, M13-7) - 100%, <1% to <1%

Trachymene aff. oleracea (B61) - 100%, <1% to <1%
Tephrosia aff supina (MET 12,357) - 100%, <1% to <1%
Solanum gabrielae - 100%, <1% to <1%
Cenchrus ciliaris - 100%, 5-10% to 25-33%
Acacia coriacea - 100%, <1% to 1-5%
Tinospora smilacina - 100%, <1% to <1%
Enchylaena tomentosa - 100%, <1% to <1%
Triumfetta clementii - 100%, <1% to <1%
Trichodesma zeylanicum - 100%, <1% to <1%
Gomphrena cunninghamii - 100%, <1% to <1%

200 Floristic Group Level, Unit: 123,

Average Number of Species / Site: 32
Sites from: CAPPRE - 3 Coastal: 1
Sites in Habitats: rp - 3
Portion of Dendrogram: (Area and Site on left)
CAPPRE M037 _____
CAPPRE M085 _____|_____
CAPPRE M037A _____|_____

Vegetation Description:
CAPPRE M037 Acacia coriacea open shrubland over scattered Acacia bivenosa over Cymbopogon ambiguus open grassland.
CAPPRE M085 Acacia coriacea tall open shrubland over scattered Santalum lanceolatum, Eremophila longifolia and Ehretia saligna over *Cenchrus ciliaris / Triodia wiseana / Cymbopogon grassland with vines of Trichosanthes cucumerina.
CAPPRE M037A See details for M037.

Soil:
CAPPRE M037
CAPPRE M085 Red-brown gravelly / pebbly loam amongst boulders. Significant areas of soil between rocks (ca. 20%).
CAPPRE M037A

Common Species: (Name - % of Sites, Range of Cover)
Eremophila longifolia - 100%, <1% to <1%
Rhynchosia cf. minima - 100%, <1% to <1%
Phyllanthus maderaspatensis var. angustifolius - 100%, <1% to <1%
Triumfetta clementii - 100%, <1% to <1%
Acacia coriacea - 100%, <1% to 5-10%
Hibiscus aff. platychlamys (M39.14) - 100%, <1% to <1%
Gomphrena cunninghamii - 100%, <1% to <1%
Enchylaena tomentosa - 100%, <1% to <1%
Acacia bivenosa - 100%, <1% to 1-5%
Tephrosia aff. densa (B17) - 100%, <1% to <1%
Cenchrus ciliaris - 100%, <1% to 10-25%
Cymbopogon ambiguus - 100%, <1% to 5-10%
Polycarpaea longiflora (White form, M13-7) - 67%, <1% to <1%
Digitaria ctenantha - 67%, <1% to <1%
Capparis spinosa var. nummularia - 67%, <1% to <1%
Dactyloctenium radulans - 67%, <1% to <1%
Chrysopogon fallax - 67%, <1% to <1%
Triodia wiseana - 67%, <1% to 1-5%
Ehretia saligna var. saligna - 67%, <1% to <1%
Tinospora smilacina - 67%, <1% to <1%

50 Group Level, Member: 33,

Average Number of Species / Site: 36
Sites from: CAPPRE - 10
Sites in Habitats: d - 8 dap - 1 dn - 1

Common Species: (Name - % of Sites, Range of Cover)
Eucalyptus victrix - 100%, <1% to 25-33%
Sesbania cannabina - 100%, <1% to 1-5%
Cenchrus ciliaris - 100%, <1% to 50-70%
Phyllanthus maderaspatensis var. angustifolius - 90%, <1% to <1%
Cenchrus setigerus - 90%, <1% to 33-50%
Acacia coriacea - 80%, <1% to 33-50%
Prosopis pallida - 80%, <1% to 5-10%
Rostellularia adscendens var. clementii - 80%, <1% to 1-5%
Ipomoea muelleri - 80%, <1% to 1-5%
Cleome viscosa - 70%, <1% to 1-5%
Melaleuca glomerata - 70%, <1% to 25-33%
Eucalyptus camaldulensis var. obtusa - 70%, <1% to 33-50%
Alternanthera nana - 70%, <1% to 10-25%
Trichodesma zeylanicum - 60%, <1% to 1-5%
Vigna lanceolata var. lanceolata - 60%, <1% to 1-5%
Cucumis melo subsp. agrestis - 60%, <1% to <1%
Corchorus tridens - 60%, <1% to <1%
Dactyloctenium radulans - 60%, <1% to 1-5%
Cyperus vaginatus - 60%, <1% to 10-25%
Operculina aequisepala - 60%, <1% to <1%

200 Floristic Group Level, Unit: 124,

Average Number of Species / Site: 42
Sites from: CAPPRE - 2
Sites in Habitats: d - 2
Portion of Dendrogram: (Area and Site on left)
CAPPRE M006 _____
CAPPRE M059 _____|____

Vegetation Description:
CAPPRE M006 Open Eucalyptus victrix over moderately dense tall shrubs dominated by Acacia coriacea over dense Buffel grass.
CAPPRE M059 Eucalyptus victrix / E. camaldulensis open woodland over Acacia coriacea and Mesquite high shrubland over herbs.

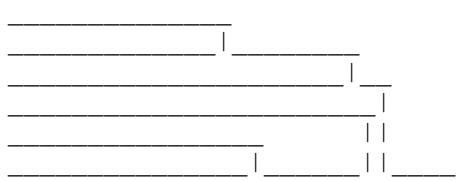
Soil:
CAPPRE M006 Red clayey soil.
CAPPRE M059 Red-brown soft wet loam on edges of bed; gravelly / pebbly coarse sandy loam in the middle of bed, with large loamy sections.

Common Species: (Name - % of Sites, Range of Cover)
Rostellularia adscendens var. clementii - 100%, <1% to 1-5%
Triumfetta clementii - 100%, <1% to 1-5%
Acacia coriacea - 100%, 25-33% to 33-50%
Acacia pyrifolia (slender, white) - 100%, <1% to 1-5%
Portulaca oleracea - 100%, <1% to <1%
Phyllanthus maderaspatensis var. angustifolius - 100%, <1% to <1%
Cenchrus setigerus - 100%, <1% to 10-25%
Sesbania cannabina - 100%, <1% to 1-5%
Malvastrum americanum - 100%, <1% to 1-5%
Dactyloctenium radulans - 100%, <1% to 1-5%
Trichodesma zeylanicum - 100%, <1% to 1-5%

Cenchrus ciliaris - 100%, 1-5% to 50-70%
Eucalyptus victrix - 100%, 5-10% to 25-33%
Acacia trachycarpa - 100%, <1% to 1-5%
Vigna lanceolata var. lanceolata - 100%, <1% to 1-5%
Acacia farnesiana - 100%, <1% to 1-5%
Achyranthes aspera - 100%, <1% to 1-5%
Alternanthera nana - 100%, <1% to 10-25%
Ipomoea muelleri - 100%, <1% to 1-5%
Cleome viscosa - 100%, <1% to 1-5%

200 Floristic Group Level, Unit: 125,

Average Number of Species / Site: 36
Sites from: CAPPRE - 6
Sites in Habitats: d - 5 dap - 1
Portion of Dendrogram: (Area and Site on left)



Vegetation Description:
CAPPRE M066 Scattered Eucalyptus victrix over Acacia coriacea high shrubland over *Cenchrus spp. closed tussock grassland.
CAPPRE M099 Eucalyptus victrix open woodland to woodland over scattered low trees of Erythrina vespertilio over scattered Melaleuca glomerata (dead) tall shrubs over *Cenchrus mid-dense / dense tussock grassland.
CAPPRE M126 Melaleuca argentea / Eucalyptus camaldulensis woodland over patches of Acacia coriacea tall shrubs over dense *Cenchrus on banks.
CAPPRE M084 Eucalyptus camaldulensis / E. victrix woodland over patches of Melaleuca glomerata and/or Acacia ampliceps tall shrubs over *Cenchrus spp. closed tussock grassland.
CAPPRE M101 Eucalyptus victrix low woodland to woodland over Melaleuca glomerata / Acacia ampliceps / Prosopis pallida hybrid tall open shrubland to tall shrubland over patches of *Cenchrus ciliaris dense grassland (on elevated areas) or patches of Cyperus bifax mid-
CAPPRE M124 Eucalyptus camaldulensis woodland over patches of Melaleuca glomerata tall shrubs over patches of Cyperus vaginatus sedges.

Soil:
CAPPRE M066 Red clay.
CAPPRE M099 Fine light brown loamy soil (fine sand / sillt).
CAPPRE M126
CAPPRE M084 Red clay loam.
CAPPRE M101 Red-brown clayey loam, pebbly to cobbly in places.
CAPPRE M124 Brown sandy loam on banks

Common Species: (Name - % of Sites, Range of Cover)
Eucalyptus victrix - 100%, <1% to 10-25%
Cenchrus setigerus - 100%, <1% to 33-50%
Cenchrus ciliaris - 100%, 5-10% to 50-70%
Sesbania cannabina - 100%, <1% to <1%
Cleome viscosa - 83%, <1% to <1%
Melaleuca glomerata - 83%, <1% to 25-33%
Phyllanthus maderaspatensis var. angustifolius - 83%, <1% to <1%
Rostellularia adscendens var. clementii - 83%, <1% to 1-5%
Prosopis pallida - 83%, <1% to 1-5%
Eucalyptus camaldulensis var. obtusa - 83%, <1% to 33-50%

Ipomoea muelleri - 83%, <1% to <1%
Corchorus tridens - 83%, <1% to <1%
Acacia coriacea - 67%, <1% to 10-25%
Cyperus squarrosus - 67%, <1% to <1%
Operculina aequisepala - 67%, <1% to <1%
Passiflora foetida - 67%, <1% to <1%
Erythrina vespertilio - 67%, <1% to <1%
Nicotiana rosulata subsp. rosulata - 67%, <1% to <1%
Cyperus vaginatus - 67%, <1% to 10-25%
Alternanthera nodiflora - 67%, <1% to <1%

200 Floristic Group Level, Unit: 126,

Average Number of Species / Site: 37
Sites from: CAPPRE - 1
Sites in Habitats: dn - 1
Portion of Dendrogram: (Area and Site on left)
CAPPRE M073 _____|

Vegetation Description:
CAPPRE M073 Acacia ampliceps, A. coriacea high shrubland over *Cenchrus ciliaris tussock grassland (on banks).

Soil:
CAPPRE M073 Red-brown loam on banks (currently wet); seasonal pool in bed.

Common Species: (Name - % of Sites, Range of Cover)
Panicum decompositum - 100%, <1% to <1%
Eragrostis tenellula - 100%, <1% to <1%
Digitaria brownii - 100%, <1% to <1%
Dactyloctenium radulans - 100%, <1% to <1%
Cenchrus ciliaris - 100%, 50-70% to 50-70%
Corchorus aff. walcotti (K.J. Atkins 570) - 100%, <1% to <1%
Eucalyptus victrix - 100%, <1% to <1%
Sporobolus virginicus - 100%, <1% to <1%
Triodia angusta (Burrup Form) - 100%, 1-5% to 1-5%
Cyperus bulbosus - 100%, <1% to <1%
Cyperus iria - 100%, <1% to <1%
Cyperus squarrosus - 100%, <1% to <1%
Alternanthera nana - 100%, <1% to <1%
Eriachne benthamii - 100%, <1% to <1%
Acacia ampliceps - 100%, 10-25% to 10-25%
Acacia bivenosa - 100%, <1% to <1%
Alternanthera nodiflora - 100%, <1% to <1%
Cullen graveolens - 100%, <1% to <1%
Vigna lanceolata var. latifolia - 100%, <1% to <1%
Sesbania cannabina - 100%, <1% to <1%

200 Floristic Group Level, Unit: 127,

Average Number of Species / Site: 27
Sites from: CAPPRE - 1
Sites in Habitats: d - 1
Portion of Dendrogram: (Area and Site on left)
CAPPRE M122 _____

Vegetation Description:
CAPPRE M122 Eucalyptus camaldulensis woodland over patches of dense tall shrubs (mainly Melaleuca glomerata).

Soil:
CAPPRE M122 Red clayey soil on banks and in bed.

Common Species: (Name - % of Sites, Range of Cover)
Prosopis pallida - 100%, <1% to <1%
Amaranthus sp. (M99-1) - 100%, <1% to <1%
Cyperus vaginatus - 100%, 5-10% to 5-10%
Myoporum montanum - 100%, <1% to <1%
Cenchrus setigerus - 100%, <1% to <1%
Sporobolus virginicus - 100%, 5-10% to 5-10%
Typha domingensis - 100%, <1% to <1%
Schoenoplectus litoralis - 100%, <1% to <1%
Achyranthes aspera - 100%, <1% to <1%
Stylobasium spathulatum - 100%, <1% to <1%
Acacia coriacea - 100%, <1% to <1%
Abutilon amplum - 100%, <1% to <1%
Triodia angusta (Burrup Form) - 100%, <1% to <1%
Acacia ampliceps - 100%, <1% to <1%
Vigna lanceolata var. lanceolata - 100%, <1% to <1%
Ipomoea coptica - 100%, <1% to <1%
Passiflora foetida - 100%, 5-10% to 5-10%
Melochia pyramidata - 100%, <1% to <1%
Melaleuca glomerata - 100%, 25-33% to 25-33%
Cucumis melo subsp. agrestis - 100%, <1% to <1%

50 Group Level, Member: 34,

Average Number of Species / Site: 26
Sites from: CAPPRE - 7
Sites in Habitats: dap - 4 p - 3

Common Species: (Name - % of Sites, Range of Cover)
Rhynchosia cf. minima - 100%, <1% to <1%
Indigofera trita - 86%, <1% to <1%
Phyllanthus maderaspatensis var. angustifolius - 86%, <1% to <1%
Eragrostis xerophila - 86%, 1-5% to >70%
Neptunia dimorphantha - 71%, <1% to 1-5%
Dichanthium sericeum subsp. humilius - 71%, <1% to 1-5%
Enneapogon caerulescens var. occidentalis - 57%, <1% to <1%
Cenchrus ciliaris - 57%, <1% to 5-10%
Eriachne benthamii - 57%, <1% to 50-70%
Streptoglossa liatroides - 57%, <1% to 5-10%
Sporobolus australasicus - 57%, <1% to <1%
Stemodia kingii - 43%, <1% to <1%
Solanum horridum - 43%, <1% to <1%
Lotus cruentus - 43%, <1% to 1-5%
Indigastrum parviflorum (Cape Preston form; M23.12) - 43%, <1% to <1%

Cleome viscosa - 43%, <1% to <1%
Boerhavia paludosa - 43%, <1% to <1%
Sida aff. fibulifera 'var. L' - 43%, <1% to 1-5%
Xerochloa imberbis - 43%, <1% to <1%
Aristida contorta - 43%, <1% to 5-10%

200 Floristic Group Level, Unit: 128,

Average Number of Species / Site: 29
Sites from: CAPPRE - 2
Sites in Habitats: dap - 2
Portion of Dendrogram: (Area and Site on left)
CAPPRE M001 _____
CAPPRE M027 _____|_____

Vegetation Description:
CAPPRE M001 Eriachne benthamii / Eragrostis xerophila tussock grassland.
CAPPRE M027 Eriachne benthamii / Eragrostis xerophila mid-dense tussock grassland.

Soil:
CAPPRE M001 Red-brown clay; would be cracking when dry, currently very wet.
CAPPRE M027 Red-brown cracking clay with small depressions.

Common Species: (Name - % of Sites, Range of Cover)
Stemodia kingii - 100%, <1% to <1%
Rhynchosia cf. minima - 100%, <1% to <1%
Marsilea hirsuta - 100%, <1% to <1%
Eriachne benthamii - 100%, 25-33% to 50-70%
Phyllanthus maderaspatensis var. angustifolius - 100%, <1% to <1%
Neptunia dimorphantha - 100%, <1% to <1%
Cyperus iria - 100%, <1% to <1%
Centipeda minima - 100%, <1% to <1%
Eragrostis xerophila - 100%, 5-10% to 10-25%
Cyperus squarrosus - 100%, <1% to <1%
Indigofera trita - 100%, <1% to <1%

200 Floristic Group Level, Unit: 129,

Average Number of Species / Site: 44
Sites from: CAPPRE - 2
Sites in Habitats: dap - 2
Portion of Dendrogram: (Area and Site on left)
CAPPRE M003 _____
CAPPRE M021 _____|___

Vegetation Description:
CAPPRE M003 Acacia xiphophylla open shrubland over scattered patches of *Cenchrus ciliaris and Eragrostis xerophila.
CAPPRE M021 Eragrostis xerophila mid-dense tussock grassland with small patches of Eriachne benthamii (and other patches with Sida fibulifera or annual herbs).

Soil:
CAPPRE M003 Red-brown clay loam, cracking slightly in dryer areas. Dryer at western end, wet at eastern end.
CAPPRE M021 Orange-brown cracking clay. Some small patches more bare of vegetation (slightly raised and more pebbly), and some slight depressions that are a little wetter. Some pebbles.

Common Species: (Name - % of Sites, Range of Cover)
Iseilema membranaceum - 100%, <1% to <1%
Cleome viscosa - 100%, <1% to <1%
Xerochloa imberbis - 100%, <1% to <1%
Neptunia dimorphantha - 100%, <1% to <1%
Aristida contorta - 100%, <1% to 5-10%
Enneapogon caerulescens var. occidentalis - 100%, <1% to <1%
Rhynchosia cf. minima - 100%, <1% to <1%
Dichanthium sericeum subsp. humilius - 100%, <1% to <1%
Indigastrum parviflorum (Cape Preston form; M23.12) - 100%, <1% to <1%
Indigofera trita - 100%, <1% to <1%
Sporobolus australasicus - 100%, <1% to <1%
Solanum horridum - 100%, <1% to <1%
Eriachne benthamii - 100%, <1% to <1%
Eragrostis xerophila - 100%, 1-5% to 25-33%
Dactyloctenium radulans - 100%, <1% to <1%
Cenchrus ciliaris - 100%, <1% to 5-10%
Euphorbia aff. drummondii (MET 15211) - 100%, <1% to <1%
Boerhavia paludosa - 100%, <1% to <1%
Alysicarpus rugosus - 100%, <1% to <1%

200 Floristic Group Level, Unit: 130,

Average Number of Species / Site: 12
Sites from: CAPPRE - 2
Sites in Habitats: p - 2
Portion of Dendrogram: (Area and Site on left)
CAPPRE M002A _____
CAPPRE M105 _____|_____

Vegetation Description:
CAPPRE M002A Eragrostis xerophila tussock grassland.
CAPPRE M105 Eragrostis xerophila mid-dense grassland.

Soil:
CAPPRE M002A Red clay soil with deep holes in places.
CAPPRE M105 Red-brown cracking clay with small undulations and a few pebbles.

Common Species: (Name - % of Sites, Range of Cover)
Phyllanthus maderaspatensis var. angustifolius - 100%, <1% to <1%
Eragrostis xerophila - 100%, 33-50% to >70%
Indigofera trita - 100%, <1% to <1%
Lotus cruentus - 100%, <1% to 1-5%
Rhynchosia cf. minima - 100%, <1% to <1%

200 Floristic Group Level, Unit: 131,

Average Number of Species / Site: 12
Sites from: CAPPRE - 1
Sites in Habitats: p - 1
Portion of Dendrogram: (Area and Site on left)
CAPPRE M002B _____

Vegetation Description:
CAPPRE M002B Sida aff. fibulifera low shrubland.

Soil:
CAPPRE M002B Red clay soil with deep holes in places.

Common Species: (Name - % of Sites, Range of Cover)
Neptunia dimorphantha - 100%, 1-5% to 1-5%
Oldenlandia crouchiana - 100%, <1% to <1%
Sida aff. fibulifera (M85.15) - 100%, 25-33% to 25-33%
Rhynchosia cf. minima - 100%, <1% to <1%
Aristida contorta - 100%, <1% to <1%
Sporobolus australasicus - 100%, <1% to <1%
Streptoglossa liatroides - 100%, 5-10% to 5-10%
Dichanthium sericeum subsp. humilius - 100%, 1-5% to 1-5%
Phyllanthus maderaspatensis var. angustifolius - 100%, <1% to <1%
Enneapogon caerulescens var. occidentalis - 100%, <1% to <1%
Sclerolaena costata - 100%, 1-5% to 1-5%
Cenchrus ciliaris - 100%, <1% to <1%

50 Group Level, Member: 35,

Average Number of Species / Site: 14
Sites from: CAPPRE - 3
Sites in Habitats: dn - 1 ps - 1 dap - 1

Common Species: (Name - % of Sites, Range of Cover)
Sida aff. fibulifera 'var. L' - 100%, <1% to <1%
Dactyloctenium radulans - 100%, <1% to <1%
Xerochloa imberbis - 67%, <1% to 33-50%
Cenchrus ciliaris - 67%, <1% to 5-10%
Portulaca pilosa - 67%, <1% to <1%
Ptilotus murrayi var. murrayi - 67%, <1% to 1-5%
Ptilotus aervoides - 67%, <1% to <1%
Enchylaena tomentosa - 67%, <1% to <1%

200 Floristic Group Level, Unit: 132,

Average Number of Species / Site: 18
Sites from: CAPPRE - 1
Sites in Habitats: ps - 1
Portion of Dendrogram: (Area and Site on left)
CAPPRE M028B _____

Vegetation Description:
CAPPRE M028B Open herbs dominated by Sclerolaena eriacantha and Atriplex codonocarpa.

Soil:
CAPPRE M028B Red clay loam with continuous surface layer of pebbles and stones; more clayey patches within site M028.

Common Species: (Name - % of Sites, Range of Cover)
Ptilotus aervoides - 100%, <1% to <1%
Sclerolaena eriacantha - 100%, 5-10% to 5-10%
Sida aff. fibulifera 'var. L' - 100%, <1% to <1%
Dactyloctenium radulans - 100%, <1% to <1%
Sclerolaena glabra - 100%, <1% to <1%
Tragus australianus - 100%, <1% to <1%
Xerochloa imberbis - 100%, <1% to <1%
Fimbristylis depauperata - 100%, <1% to <1%
Atriplex codonocarpa - 100%, 1-5% to 1-5%
Ptilotus murrayi var. murrayi - 100%, <1% to <1%
Evolvulus alsinoides var. villosicalyx - 100%, <1% to <1%
Aristida contorta - 100%, <1% to <1%
Brachyachne prostrata - 100%, <1% to <1%
Streptoglossa liatroides - 100%, <1% to <1%
Hibiscus brachysiphonius - 100%, <1% to <1%
Cassia hamersleyensis - 100%, <1% to <1%
Portulaca pilosa - 100%, <1% to <1%
Boerhavia coccinea - 100%, <1% to <1%

200 Floristic Group Level, Unit: 133,

Average Number of Species / Site: 15
Sites from: CAPPRE - 1
Sites in Habitats: dn - 1
Portion of Dendrogram: (Area and Site on left)
CAPPRE M102 _____

Vegetation Description:
CAPPRE M102 Xerochloa imberbis grassland.

Soil:
CAPPRE M102 Heavy brown cracking clay.

Common Species: (Name - % of Sites, Range of Cover)
Xerochloa imberbis - 100%, 33-50% to 33-50%
Enchylaena tomentosa - 100%, <1% to <1%
Sida aff. fibulifera 'var. L' - 100%, <1% to <1%
Rhynchosia cf. minima - 100%, <1% to <1%
Cenchrus ciliaris - 100%, <1% to <1%
Dactyloctenium radulans - 100%, <1% to <1%
Ptilotus murrayi var. murrayi - 100%, 1-5% to 1-5%
Ptilotus exaltatus var. exaltatus - 100%, <1% to <1%
Trianthema triquetra - 100%, <1% to <1%
Corchorus tridens - 100%, <1% to <1%
Neptunia dimorphantha - 100%, <1% to <1%
Portulaca pilosa - 100%, <1% to <1%
Trianthema turgidifolia - 100%, <1% to <1%
Portulaca oleracea - 100%, <1% to <1%
Atriplex bunburyana - 100%, <1% to <1%

200 Floristic Group Level, Unit: 134,

Average Number of Species / Site: 11
Sites from: CAPPRE - 1
Sites in Habitats: dap - 1
Portion of Dendrogram: (Area and Site on left)
CAPPRE M108 _____

Vegetation Description:
CAPPRE M108 *Prosopis pallida hybrid open scrub over patches of *Cenchrus tussock grassland.

Soil:
CAPPRE M108 Dense heavy clay soil.

Common Species: (Name - % of Sites, Range of Cover)
Dactyloctenium radulans - 100%, <1% to <1%
Prosopis pallida - 100%, 50-70% to 50-70%
Euphorbia tannensis subsp. eremophila (Burrup form) - 100%, <1% to <1%
Cenchrus setigerus - 100%, 25-33% to 25-33%
Trianthema aff. triquetra (M3.35) - 100%, <1% to <1%
Salsola tragus - 100%, <1% to <1%
Cenchrus ciliaris - 100%, 5-10% to 5-10%
Enchylaena tomentosa - 100%, <1% to <1%
Ptilotus aervoides - 100%, <1% to <1%
Indigofera trita - 100%, <1% to <1%
Sida aff. fibulifera 'var. L' - 100%, <1% to <1%

50 Group Level, Member: 36,

Average Number of Species / Site: 36
Sites from: CAPPRE - 10
Sites in Habitats: ps - 8 p - 1 sl - 1

Common Species: (Name - % of Sites, Range of Cover)
Triodia wiseana - 90%, <1% to 50-70%
Cenchrus ciliaris - 90%, <1% to 33-50%
Acacia xiphophylla - 90%, 1-5% to 10-25%
Evolvulus alsinoides var. villosicalyx - 80%, <1% to <1%
Sporobolus australasicus - 80%, <1% to <1%
Enchylaena tomentosa - 80%, <1% to 1-5%
Rhagodia eremaea - 70%, <1% to 1-5%
Rhynchosia cf. minima - 70%, <1% to 1-5%
Boerhavia coccinea - 60%, <1% to 1-5%
Enneapogon caerulescens var. occidentalis - 60%, <1% to 1-5%
Solanum horridum - 60%, <1% to <1%
Leptopus decaisnei var. decaisnei - 60%, <1% to 1-5%
Paspalidium clementii - 60%, <1% to <1%
Triodia epactia - 60%, <1% to 33-50%
Maireana planifolia - 60%, <1% to 1-5%
Solanum lasiophyllum - 50%, <1% to <1%
Ptilotus exaltatus var. exaltatus - 50%, <1% to 1-5%
Cenchrus setigerus - 50%, <1% to 1-5%
Eragrostis xerophila - 50%, <1% to >70%
Sclerolaena eriacantha - 50%, <1% to 1-5%

200 Floristic Group Level, Unit: 135,

Average Number of Species / Site: 41
Sites from: CAPPRE - 2
Sites in Habitats: ps - 2
Portion of Dendrogram: (Area and Site on left)
CAPPRE M004 _____
CAPPRE M008 _____|___

Vegetation Description:
CAPPRE M004 Sparse Acacia bivenosa shrubland over dense Triodia wiseana.
CAPPRE M008 Sparse Acacia xiphophylla tall shrubs over 50-70% Triodia wiseana.

Soil:
CAPPRE M004 Red clayey loam with continuous surface scatter of quartz and other pebbles (including calcareous nodules).
CAPPRE M008 Red clay loam with quartz and other pebbles on surface.

Common Species: (Name - % of Sites, Range of Cover)
Indigofera trita - 100%, 1-5% to 1-5%
Digitaria ctenantha - 100%, <1% to 1-5%
Triumfetta clementii - 100%, 1-5% to 1-5%
Cenchrus ciliaris - 100%, <1% to 1-5%
Acacia victoriae - 100%, 1-5% to 1-5%
Sporobolus australasicus - 100%, <1% to <1%
Dactyloctenium radulans - 100%, <1% to <1%
Paspalidium clementii - 100%, <1% to <1%
Ptilotus exaltatus var. exaltatus - 100%, <1% to 1-5%
Rhynchosia cf. minima - 100%, 1-5% to 1-5%
Evolvulus alsinoides var. villosicalyx - 100%, <1% to <1%
Cenchrus setigerus - 100%, 1-5% to 1-5%
Euphorbia biconvexa - 100%, <1% to <1%
Triodia wiseana - 100%, 50-70% to 50-70%
Leptopus decaisnei var. decaisnei - 100%, <1% to 1-5%
Trichodesma zeylanicum - 100%, 1-5% to 1-5%
Boerhavia coccinea - 100%, 1-5% to 1-5%

200 Floristic Group Level, Unit: 136,

Average Number of Species / Site: 37
Sites from: CAPPRE - 3
Sites in Habitats: ps - 3
Portion of Dendrogram: (Area and Site on left)
CAPPRE M054 _____
CAPPRE M092 _____|_____
CAPPRE M110 _____|_

Vegetation Description:
CAPPRE M054 Acacia xiphophylla open shrubland over patches of Triodia wiseana hummock grassland.
CAPPRE M092 Acacia xiphophylla shrubland over Triodia wiseana hummock grassland and *Cenchrus ciliaris tussock grassland.
CAPPRE M110 Acacia xiphophylla open shrubland over Triodia wiseana hummock grassland.

Soil:
CAPPRE M054 Red clay loam with continuous surface layer of pebbles.
CAPPRE M092 Brown calcareous clay loam with ~continuous surface layer of gravel and stones; thin crust on surface.
CAPPRE M110 Deep red clay loam with continuous surface layer of pebbles and

stones.

Common Species: (Name - % of Sites, Range of Cover)
Cenchrus setigerus - 100%, <1% to <1%
Evolvulus alsinoides var. villosicalyx - 100%, <1% to <1%
Leptopus decaisnei var. decaisnei - 100%, <1% to <1%
Triodia wiseana - 100%, 10-25% to 33-50%
Triodia epactia - 100%, <1% to <1%
Cenchrus ciliaris - 100%, <1% to 33-50%
Acacia xiphophylla - 100%, 1-5% to 10-25%
Cassia aff. oligophylla (thinly sericeous) - 67%, <1% to <1%
Solanum horridum - 67%, <1% to <1%
Solanum lasiophyllum - 67%, <1% to <1%
Sclerolaena eriacantha - 67%, <1% to <1%
Aristida contorta - 67%, <1% to <1%
Salsola tragus - 67%, <1% to <1%
Rhynchosia cf. minima - 67%, <1% to <1%
Euphorbia aff. australis (M32-9) - 67%, <1% to <1%
Hibiscus aff. platychlamys (M39.14) - 67%, <1% to <1%
Malvastrum americanum - 67%, <1% to <1%
Crotalaria medicaginea (Burrup form; B65-11) - 67%, <1% to <1%
Corchorus aff. sidoides (KA204-10) - 67%, <1% to <1%
Dicladanthera forrestii - 67%, <1% to <1%

200 Floristic Group Level, Unit: 137,

Average Number of Species / Site: 25
Sites from: CAPPRE - 1
Sites in Habitats: ps - 1
Portion of Dendrogram: (Area and Site on left)
CAPPRE M096 _____|

Vegetation Description:
CAPPRE M096 Acacia xiphophylla shrubland over Triodia wiseana hummock grassland.

Soil:
CAPPRE M096 Red clay loam with continuous surface layer of pebbles and stones.

Common Species: (Name - % of Sites, Range of Cover)
Rhynchosia cf. minima - 100%, <1% to <1%
Fimbristylis aff. dichotoma (M75-4) - 100%, <1% to <1%
Goodenia muelleriana - 100%, <1% to <1%
Maireana planifolia - 100%, <1% to <1%
Cassia glutinosa x luerssenii - 100%, <1% to <1%
Enchylaena tomentosa - 100%, <1% to <1%
Cenchrus ciliaris - 100%, <1% to <1%
Chloris pectinata - 100%, <1% to <1%
Digitaria ctenantha - 100%, <1% to <1%
Eragrostis xerophila - 100%, 1-5% to 1-5%
Triodia wiseana - 100%, 10-25% to 10-25%
Abutilon aff. lepidum (2) (MET 15 970) - 100%, <1% to <1%
Iseilema dolichotrichum - 100%, <1% to <1%
Portulaca oleracea - 100%, <1% to <1%
Rhagodia eremaea - 100%, <1% to <1%
Boerhavia coccinea - 100%, <1% to <1%
Acacia xiphophylla - 100%, 10-25% to 10-25%
Indigofera trita - 100%, <1% to <1%
Solanum horridum - 100%, <1% to <1%
Oldenlandia crouchiana - 100%, <1% to <1%

200 Floristic Group Level, Unit: 138,

Average Number of Species / Site: 49
Sites from: CAPPRE - 2
Sites in Habitats: p - 1 sl - 1
Portion of Dendrogram: (Area and Site on left)
CAPPRE M103 _____
CAPPRE M106 _____|____

Vegetation Description:
CAPPRE M103 Acacia xiphophylla shrubland / tall shrubland over patches of Eragrostis xerophila mid-dense tussock grassland, patches of Triodia mid-dense hummock grassland and barer areas with herbs.
CAPPRE M106 Acacia xiphophylla open shrubland over Triodia epactia hummock grassland.

Soil:
CAPPRE M103 Mosaic of small patches of red-brown cracking clay with patches of pebbly / gravelly red-brown clay loam.
CAPPRE M106 Red clay in Snakewood patches; more elevated areas have a loamy clay with gravel and typically support herbs.

Common Species: (Name - % of Sites, Range of Cover)
Ptilotus aervoides - 100%, <1% to <1%
Mimulus gracilis - 100%, <1% to <1%
Acacia xiphophylla - 100%, 5-10% to 10-25%
Pterocaulon sphacelatum - 100%, <1% to <1%
Salsola tragus - 100%, <1% to <1%
Solanum horridum - 100%, <1% to <1%
Enneapogon caerulescens var. occidentalis - 100%, <1% to <1%
Prosopis pallida - 100%, <1% to <1%
Bulbostylis turbinata (form B; M1.16) - 100%, <1% to <1%
Rhagodia eremaea - 100%, <1% to <1%
Triodia epactia - 100%, 5-10% to 33-50%
Acacia victoriae - 100%, <1% to <1%
Sclerolaena eriacantha - 100%, <1% to <1%
Enchylaena tomentosa - 100%, <1% to <1%
Trichodesma zeylanicum - 100%, <1% to <1%
Eriachne benthamii - 100%, <1% to 1-5%
Sporobolus australasicus - 100%, <1% to <1%
Triodia wiseana - 100%, <1% to <1%
Rhynchosia cf. minima - 100%, <1% to <1%
Solanum lasiophyllum - 100%, <1% to <1%

200 Floristic Group Level, Unit: 139,

Average Number of Species / Site: 25
Sites from: CAPPRE - 2
Sites in Habitats: ps - 2
Portion of Dendrogram: (Area and Site on left)
CAPPRE M024 _____
CAPPRE M028 _____|_____

Vegetation Description:
CAPPRE M024 2-10% Acacia xiphophylla over 30-50% Triodia wiseana.
CAPPRE M028 Scattered Acacia xiphophylla low shrubs over patches of dense Eragrostis xerophila.

Soil:
CAPPRE M024 Red clay loam with continuous surface layer of pebbles and stones.
CAPPRE M028 Red clay loam with continuous surface layer of pebbles and stones.

Common Species: (Name - % of Sites, Range of Cover)
Neptunia dimorphantha - 100%, <1% to <1%
Eragrostis xerophila - 100%, <1% to >70%
Enteropogon acicularis - 100%, <1% to <1%
Cenchrus ciliaris - 100%, <1% to <1%
Sporobolus australasicus - 100%, <1% to <1%
Abutilon fraseri - 100%, <1% to <1%
Fimbristylis depauperata - 100%, <1% to <1%
Cassia chatelainiana - 100%, <1% to <1%
Acacia xiphophylla - 100%, 1-5% to 5-10%
Portulaca pilosa - 100%, <1% to <1%
Portulaca oleracea - 100%, <1% to <1%
Enchylaena tomentosa - 100%, <1% to <1%
Setaria verticillata - 100%, <1% to <1%
Hibiscus brachysiphonius - 100%, <1% to <1%

50 Group Level, Member: 37,

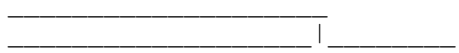
Average Number of Species / Site: 31
Sites from: CAPPRE - 47 HARDAM - 2
Sites in Habitats: sls - 11 ss - 9 scs - 7 slr - 6 dns - 4 ps - 4 p - 3 sms - 1 rpg - 1

Common Species: (Name - % of Sites, Range of Cover)
Triodia wiseana - 98%, <1% to >70%
Bonamia media var. villosa - 84%, <1% to 1-5%
Triumfetta clementii - 82%, <1% to 1-5%
Trachymene aff. oleracea (B61) - 82%, <1% to 1-5%
Evolvulus alsinoides var. villosicalyx - 80%, <1% to <1%
Trichodesma zeylanicum - 73%, <1% to 1-5%
Acacia bivenosa - 65%, <1% to 5-10%
Paspalidium clementii - 61%, <1% to 1-5%
Cymbopogon ambiguus - 57%, <1% to 10-25%
Indigofera monophylla (Cape Preston form) - 57%, <1% to 5-10%
Tephrosia aff. supina (M19-3) - 53%, <1% to 1-5%
Rhynchosia cf. minima - 51%, <1% to 10-25%
Solanum lasiophyllum - 51%, <1% to 1-5%
Hybanthus aurantiacus - 51%, <1% to 1-5%
Polygala aff. isingii - 49%, <1% to <1%
Gomphrena cunninghamii - 49%, <1% to 1-5%
Corchorus laniflorus - 47%, <1% to 5-10%

Solanum horridum - 47%, <1% to <1%
Cassia pruinosa x ?glutinosa - 47%, <1% to 1-5%
Abutilon aff. lepidum (4) - 45%, <1% to <1%

200 Floristic Group Level, Unit: 140,

Average Number of Species / Site: 19
Sites from: HARDAM - 2
Sites in Habitats: sls - 2
Portion of Dendrogram: (Area and Site on left)



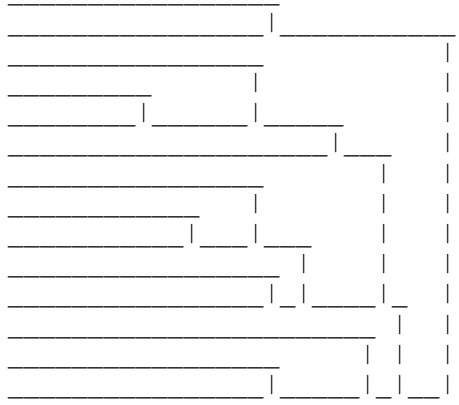
Vegetation Description:
HARDAM HD179 Cassia glutinosa scattered shrubs over Cullen, Ipomoea costata scattered shrubs over Triodia wiseana, Cymbopogon ambiguus hummock/tussock grassland with Vigna open lianes.
HARDAM HD189 Ipomoea costata scattered shrubs over Triodia wiseana hummock grassland with Vigna sp. Harding Dam (HD189-12) very open lianes.

Soil:
HARDAM HD179 Red-brown clay, cracking on surface.
HARDAM HD189 Very fine red loam with dense stony mantle.

Common Species: (Name - % of Sites, Range of Cover)
Oldenlandia crouchiana - 100%, <1% to <1%
Corchorus aff. sidoides (HD179-5) - 100%, <1% to <1%
Trichodesma zeylanicum - 100%, <1% to <1%
Bonamia media var. villosa - 100%, <1% to <1%
Trachymene aff. oleracea (B61) - 100%, <1% to 1-5%
Triodia wiseana - 100%, 33-50% to 33-50%
Ipomoea costata - 100%, <1% to 1-5%
Rhynchosia sp. Chichester (MET 15 225) - 100%, <1% to 5-10%
Polygala sp. (M23-2) - 100%, <1% to <1%
Dichanthium sericeum subsp. humilius - 100%, <1% to 1-5%

200 Floristic Group Level, Unit: 141,

Average Number of Species / Site: 27
Sites from: CAPPRE - 14
Sites in Habitats: dns - 3 sls - 3 scs - 2 ss - 2 slr - 1 s - 1 p - 1 scr - 1
Portion of Dendrogram: (Area and Site on left)



Vegetation Description:
CAPPRE M010 Very scattered shrubs of Acacia and Senna over 40-60% Triodia wiseana.

CAPPRE M014 Sparse Acacia bivenosa tall shrubs over 30-50% Triodia wiseana.
CAPPRE M015 Corymbia hamersleyana low mallee woodland with some Acacia coriacea subsp. pendens over scattered Acacia species over Triodia wiseana / T. epactia hummock grassland.
CAPPRE M016 Sparse tall shrubs dominated by Acacia bivenosa over 40-60% Triodia wiseana.
CAPPRE M017 Acacia monticola shrubland to tall shrubland / thicket over scattered Acacia bivenosa, A. ancistrocarpa and Senna glutinosa subsp. pruinosa over scattered low shrubs of Hybanthus aurantiacus and Indigofera monophylla over Triodia wiseana / T. pungens humm
CAPPRE M057 Acacia monticola / Petalostylis labicheoides tall shrubland over Indigofera monophylla / Hybanthus aurantiacus low open shrubland over Triodia wiseana mid-dense hummock grassland.
CAPPRE M020 Very occasional tall shrubs over 40-50% Triodia wiseana steppe.
CAPPRE M046 Very occasional tall shrubs (primarily Acacia bivenosa and Senna glutinosa subsp. pruinosa) over Triodia wiseana steppe.
CAPPRE M052 Acacia bivenosa open shrubland over Triodia wiseana hummock grassland.
CAPPRE M048 Very scattered tall shrubs (primarily Acacia bivenosa and Senna glutinosa subsp. pruinosa) over Triodia wiseana steppe.
CAPPRE M050 Scattered tall shrubs (primarily Senna glutinosa subsp. pruinosa) over Triodia wiseana steppe.
CAPPRE M018 Occasional tall shrubs over 2-10% Acacia arida (<1m tall) over 40-60% Triodia wiseana steppe.
CAPPRE M086 Acacia bivenosa open shrubland over Corchorus walcottii low open shrubland over Triodia wiseana hummock grassland.
CAPPRE M112 Scattered tall shrubs of Acacia bivenosa and A. ancistrocarpa over Triodia wiseana hummock grassland.

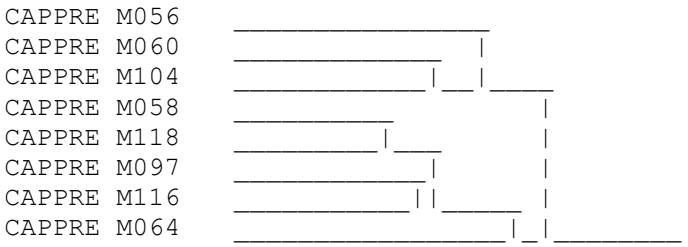
Soil:
CAPPRE M010 Shallow red clayey soil with continuous surface layer of angular pebbles.
CAPPRE M014 Skeletal red clay loam with continuous surface layer of angular pebbles.
CAPPRE M015 Red-brown gravelly / pebbly loam; thin litter layer, particularly under the Eucalypts.
CAPPRE M016 Red clay loam with continuous surface layer of quartz and angular pebbles.
CAPPRE M017 Very pebbly / gravelly red-brown loam
CAPPRE M057 Red-brown gravelly / pebbly loam, damp in patches from recent rain.
CAPPRE M020 Skeletal red clay loam with continuous surface layer of rocks.
CAPPRE M046 Shallow red clay loam with continuous surface layer of angular pebbles and stones.
CAPPRE M052 Skeletal red clay loam with continuous surface layer of angular pebbles, stones and exposed rock.
CAPPRE M048 Skeletal red clay loam with continuous surface layer of stones and rock.
CAPPRE M050 Skeletal red clay loam with continuous surface layer of pebbles, stones and exposed rock.
CAPPRE M018 Skeletal red clay loam with continuous surface layer of pebbles and massive ?ironstone.
CAPPRE M086 Brown (orange tinge) calcareous loam with scatters of quartz and other pebbles on surface.
CAPPRE M112 Skeletal red-brown clay loam with continuous surface layer of pebbles.

Common Species: (Name - % of Sites, Range of Cover)
Triodia wiseana - 100%, 25-33% to 50-70%

Bonamia media var. villosa - 100%, <1% to 1-5%
Acacia bivenosa - 93%, <1% to 5-10%
Trachymene aff. oleracea (B61) - 93%, <1% to <1%
Hybanthus aurantiacus - 86%, <1% to 1-5%
Evolvulus alsinoides var. villosicalyx - 79%, <1% to <1%
Trichodesma zeylanicum - 79%, <1% to 1-5%
Cassia pruinosa x ?glutinosa - 79%, <1% to 1-5%
Triumfetta clementii - 71%, <1% to <1%
Corchorus laniflorus - 71%, <1% to <1%
Acacia ancistrocarpa - 64%, <1% to 1-5%
Cassytha capillaris - 64%, <1% to 1-5%
Cymbopogon ambiguus - 57%, <1% to 1-5%
Acacia coriacea - 57%, <1% to 1-5%
Paspalidium clementii - 57%, <1% to <1%
Polygala aff. isingii - 57%, <1% to <1%
Indigofera monophylla (Cape Preston form) - 50%, <1% to 1-5%
Acacia pyrifolia (slender, white) - 50%, <1% to <1%
Bidens bipinnata - 50%, <1% to <1%

200 Floristic Group Level, Unit: 142,

Average Number of Species / Site: 19
Sites from: CAPPRE - 8
Sites in Habitats: scs - 3 sls - 3 sms - 1 ss - 1
Portion of Dendrogram: (Area and Site on left)



Vegetation Description:
CAPPRE M056 Very scattered tall shrubs over Triodia wiseana hummock grassland..
CAPPRE M060 Scattered Senna glutinosa subsp. pruinosa tall shrubs over Triodia wiseana hummock grassland.
CAPPRE M104 Scattered shrubs of Senna glutinosa subsp. pruinosa over Triodia wiseana hummock grassland.
CAPPRE M058 Scattered Acacia bivenosa tall shrubs over Triodia wiseana hummock grassland.
CAPPRE M118 Scattered tall shrubs (mainly Senna glutinosa subsp. pruinosa) over Triodia wiseana hummock grassland.
CAPPRE M097 Triodia wiseana hummock grassland with scattered low shrubs of Acacia victoriae, A. bivenosa and A. pyrifolia.
CAPPRE M116 Scattered Acacia bivenosa tall shrubs over Triodia wiseana hummock grassland.
CAPPRE M064 Very scattered Acacia bivenosa tall shrubs over Triodia wiseana hummock grassland.

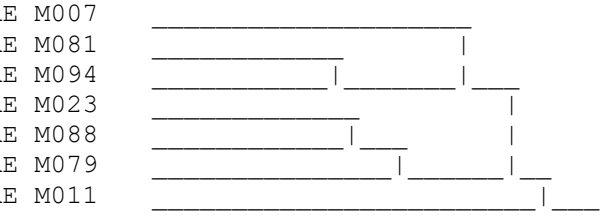
Soil:
CAPPRE M056 Skeletal red clay loam with continuous surface layer of pebbles, stones and exposed rock.
CAPPRE M060 Skeletal red clay loam with continuous surface layer of angular pebbles, stones and rocks.
CAPPRE M104 Skeletal red clay loam with continuous surface layer of pebbles and stones.
CAPPRE M058 Skeletal orange/red clay loam with continuous surface layer of

pebbles and stones.
CAPPRE M118 Skeletal red clay loam with continuous surface layer of pebbles and stones.
CAPPRE M097 Red-brown pebbly / gravelly loam with a coarse pebble surface; some low outcrops.
CAPPRE M116 Skeletal red clay loam with continuous surface layer of pebbles stones and exposed rock.
CAPPRE M064 Red clay loam with continuous surface layer of angular pebbles.

Common Species: (Name - % of Sites, Range of Cover)
Trachymene aff. oleracea (B61) - 100%, <1% to <1%
Triodia wiseana - 100%, 25-33% to 33-50%
Polygala aff. isingii - 88%, <1% to <1%
Prosopis pallida - 88%, <1% to <1%
Tephrosia aff. supina (M19-3) - 88%, <1% to <1%
Bonamia media var. villosa - 88%, <1% to <1%
Triumfetta clementii - 75%, <1% to <1%
Trichodesma zeylanicum - 75%, <1% to <1%
Corchorus laniflorus - 75%, <1% to <1%
Cassia pruinosa x ?glutinosa - 62%, <1% to <1%

200 Floristic Group Level, Unit: 143,

Average Number of Species / Site: 43
Sites from: CAPPRE - 7
Sites in Habitats: scs - 2 slr - 2 ps - 1 p - 1 sls - 1
Portion of Dendrogram: (Area and Site on left)



Vegetation Description:
CAPPRE M007 Acacia xiphophylla open shrubland over Triodia wiseana hummock grassland.
CAPPRE M081 Scattered shrubs of Grevillea pyramidalis and Acacia pyrifolia (slender stems, not corky) over Triodia wiseana mid-dense hummock grassland with lianes of Rhynchosia cf. minima.
CAPPRE M094 Scattered Acacia bivenosa (with very occasional Acacia inaequilatera) over Triodia wiseana hummock grassland.
CAPPRE M023 Triodia wiseana mid-dense hummock grassland.
CAPPRE M088 Scattered Acacia ancistrocarpa tall shrubs over Triodia wiseana hummock grassland.
CAPPRE M079 Scattered Acacia inaequilatera / A. ancistrocarpa over Triodia wiseana hummock grassland.
CAPPRE M011 Scattered Acacia arida and Senna glutinosa subsp. glutinosa / S. g. subsp. pruinosa over Triodia wiseana hummock grassland.

Soil:
CAPPRE M007 Gravelly / pebbly red-brown loam; some patches around Acacia xiphophylla shrubs are less pebbly.
CAPPRE M081 Gravelly / pebbly / cobbly red-brown loam, with some low outcrops of volcanic rock.
CAPPRE M094 Red brown clay loam with continuous surface layer of pebbles and stones.
CAPPRE M023 Very gravelly / pebbly red-brown loam with some cobbles (?basaltic).

CAPPRE M088 Skeletal red clay loam with continuous surface layer of pebbles, stones and rocks.
CAPPRE M079 Gravelly / pebbly brown loam with gravel to cobble surface.
CAPPRE M011 Red-brown pebbly / gravelly loam with some cobbles amongst low outcrops; more loamy in patches between outcrops.

Common Species: (Name - % of Sites, Range of Cover)
Triumfetta clementii - 100%, <1% to 1-5%
Bonamia media var. villosa - 100%, <1% to <1%
Triodia wiseana - 100%, 10-25% to 33-50%
Paspalidium clementii - 100%, <1% to <1%
Ptilotus exaltatus var. exaltatus - 100%, <1% to <1%
Rhynchosia cf. minima - 86%, <1% to <1%
Abutilon aff. lepidum (4) - 86%, <1% to <1%
Tephrosia aff. supina (M19-3) - 86%, <1% to 1-5%
Boerhavia coccinea - 86%, <1% to <1%
Evolvulus alsinoides var. villosicalyx - 86%, <1% to <1%
Solanum horridum - 86%, <1% to <1%
Solanum lasiophyllum - 71%, <1% to <1%
Iseilema dolichotrichum - 71%, <1% to <1%
Aristida contorta - 71%, <1% to <1%
Oldenlandia crouchiana - 71%, <1% to <1%
Dichanthium sericeum subsp. humilius - 71%, <1% to <1%
Corchorus laniflorus - 71%, <1% to 5-10%
Trichodesma zeylanicum - 71%, <1% to <1%
Cenchrus ciliaris - 71%, <1% to <1%
Gomphrena cunninghamii - 71%, <1% to <1%

200 Floristic Group Level, Unit: 144,

Average Number of Species / Site: 43
Sites from: CAPPRE - 2
Sites in Habitats: rpg - 1 slr - 1
Portion of Dendrogram: (Area and Site on left)
CAPPRE M075 _____
CAPPRE M077 _____|___

Vegetation Description:
CAPPRE M075 Fimbristylis dichotoma low very open to mid-dense sedgeland with annual herbs and grasses.
CAPPRE M077 Acacia ancistrocarpa tall open shrubland over Indigofera monophylla low open shrubland / low shrubland over Triodia epactia / *Cenchrus ciliaris mid-dense grassland with lianes of Rhynchosia cf. minima.

Soil:
CAPPRE M075 Varies from red-brown sandy loam with an algal crust on the surface to orange-brown sandy loam with a coarse sandy surface.
CAPPRE M077 Light brown, hard-setting loam with some coarse sand grains.

Common Species: (Name - % of Sites, Range of Cover)
Tephrosia aff supina (MET 12,357) - 100%, <1% to <1%
Portulaca pilosa - 100%, <1% to <1%
Trachymene aff. oleracea (B61) - 100%, <1% to <1%
Alysicarpus rugosus - 100%, <1% to <1%
Tephrosia clementii - 100%, <1% to <1%
Corchorus tridens - 100%, <1% to <1%
Phyllanthus lacunellus - 100%, <1% to <1%
Abutilon aff. lepidum (4) - 100%, <1% to <1%
Digitaria ctenantha - 100%, <1% to <1%
Cymbopogon ambiguus - 100%, <1% to <1%

Triumfetta clementii - 100%, <1% to <1%
Boerhavia coccinea - 100%, <1% to <1%
Goodenia microptera - 100%, <1% to <1%
Hybanthus aurantiacus - 100%, <1% to <1%
Evolvulus alsinoides var. villosicalyx - 100%, <1% to <1%
Portulaca oleracea - 100%, <1% to <1%
Gomphrena cunninghamii - 100%, <1% to <1%
Cenchrus ciliaris - 100%, <1% to 5-10%
Aristida contorta - 100%, <1% to 1-5%
Bulbostylis barbata - 100%, <1% to <1%

200 Floristic Group Level, Unit: 145,

Average Number of Species / Site: 26
Sites from: CAPPRE - 2
Sites in Habitats: ss - 2
Portion of Dendrogram: (Area and Site on left)
CAPPRE M120 _____
CAPPRE M120A _____|_____

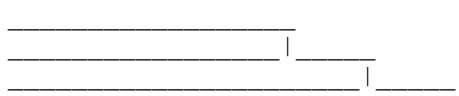
Vegetation Description:
CAPPRE M120 Triodia wiseana hummock grassland (negligible overstorey).
CAPPRE M120A 2-10% herbs and shrub seedlings.

Soil:
CAPPRE M120 Skeletal red clay loam with continuous surface layer of angular pebbles and stones.
CAPPRE M120A

Common Species: (Name - % of Sites, Range of Cover)
Tephrosia aff supina (MET 12,357) - 100%, <1% to <1%
Crotalaria medicaginea (Burrup form; B65-11) - 100%, <1% to <1%
Paspalidium clementii - 100%, <1% to <1%
Triodia wiseana - 100%, <1% to 33-50%
Bulbostylis barbata - 100%, <1% to <1%
Fimbristylis aff. dichotoma (M75-4) - 100%, <1% to <1%
Trachymene aff. oleracea (B61) - 100%, <1% to <1%
Indigofera colutea - 100%, <1% to <1%
Portulaca oleracea - 100%, <1% to <1%
Cleome viscosa - 100%, <1% to <1%
Boerhavia coccinea - 100%, <1% to <1%
Trichodesma zeylanicum - 100%, <1% to <1%
Evolvulus alsinoides var. villosicalyx - 100%, <1% to <1%
Triumfetta clementii - 100%, <1% to <1%
Phyllanthus lacunellus - 100%, <1% to <1%
Gomphrena cunninghamii - 100%, <1% to <1%

200 Floristic Group Level, Unit: 146,

Average Number of Species / Site: 31
Sites from: CAPPRE - 3
Sites in Habitats: p - 1 ps - 1 sls - 1
Portion of Dendrogram: (Area and Site on left)



Vegetation Description:

CAPPRE M026 Very occasional tall shrubs of Acacia inaequilatera over Triodia wiseana steppe.
CAPPRE M031 Scattered Acacia inaequilatera and A. bivenosa over Triodia wiseana mid-dense hummock grassland.
CAPPRE M030 2-10% tall shrubs of Acacia bivenosa over very dense Triodia wiseana steppe.

Soil:

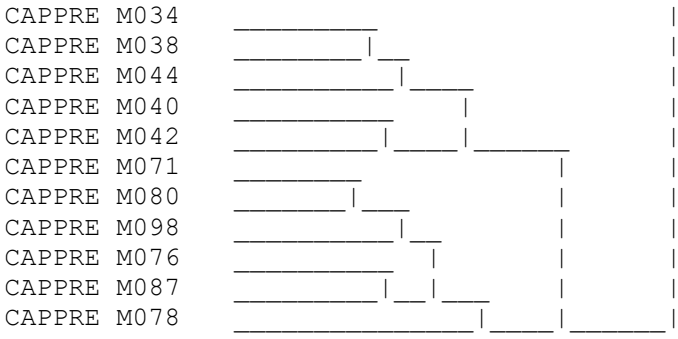
CAPPRE M026 Red clay loam with continuous surface layer of pebbles.
CAPPRE M031 Red-brown pebbly / gravelly loam. Lowest part of plot has fewer pebbles.
CAPPRE M030 Red clay loam with scatters of pebbles and occasional stones on surface.

Common Species: (Name - % of Sites, Range of Cover)

Hibiscus aff. platychlamys (M39.14) - 100%, <1% to <1%
Paspalidium clementii - 100%, <1% to <1%
Triumfetta clementii - 100%, <1% to <1%
Dichanthium sericeum subsp. humilius - 100%, <1% to <1%
Rhynchosia cf. minima - 100%, <1% to <1%
Evolvulus alsinoides var. villosicalyx - 100%, <1% to <1%
Pterocaulon sphacelatum - 100%, <1% to <1%
Triodia wiseana - 100%, 33-50% to >70%
Cenchrus ciliaris - 100%, <1% to <1%
Sclerolaena eriacantha - 67%, <1% to <1%
Solanum lasiophyllum - 67%, <1% to <1%
Digitaria brownii - 67%, <1% to <1%
Mukia aff. maderaspatana sp. C - 67%, <1% to <1%
Enchylaena tomentosa - 67%, <1% to <1%
Rhagodia eremaea - 67%, <1% to <1%
Phyllanthus lacunellus - 67%, <1% to <1%
Indigofera trita - 67%, <1% to 10-25%
Acacia bivenosa - 67%, 1-5% to 5-10%
Acacia inaequilatera - 67%, <1% to <1%
Cassia notabilis - 67%, <1% to <1%

200 Floristic Group Level, Unit: 147,

Average Number of Species / Site: 39
Sites from: CAPPRE - 11
Sites in Habitats: ss - 4 slr - 2 ps - 2 sls - 1 dns - 1 rp - 1
Portion of Dendrogram: (Area and Site on left)



Vegetation Description:

CAPPRE M034 Scattered shrubs (primarily Acacia bivenosa) over Triodia wiseana steppe.
CAPPRE M038 Triodia wiseana steppe.
CAPPRE M044 Scattered tall shrubs (primarily Acacia bivenosa) over Triodia wiseana steppe.
CAPPRE M040 Scattered tall shrubs (primarily Acacia bivenosa) over Triodia wiseana steppe.
CAPPRE M042 Scattered tall shrubs (primarily Acacia inaequilatera) over Triodia wiseana steppe.
CAPPRE M071 Scattered tall shrubs of Acacia coriacea over scattered low shrubs of Scaevola spinescens and Triodia wiseana mid-dense hummock grassland with lianes of Mukia.
CAPPRE M080 Indigofera monophylla, Corchorus walcottii low open shrubland over Triodia wiseana hummock grassland.
CAPPRE M098 Scattered Acacia bivenosa tall shrubs over Triodia wiseana hummock grassland .
CAPPRE M076 Indigofera monophylla low open shrubland over Triodia wiseana hummock grassland.
CAPPRE M087 Triodia wiseana mid-dense hummock grassland with Indigofera monophylla low open shrubland.
CAPPRE M078 Acacia coriacea open shrubland over Triodia wiseana and tussock grasses.

Soil:

CAPPRE M034 Red/orange clay loam with continuous surface layer of pebbles and stones, including calcareous nodules.
CAPPRE M038 Very shallow red soil with continuous surface layer of stones and rocks. Solid rock close to surface.
CAPPRE M044 Red clay loam with continuous surface layer of pebbles and stones.
CAPPRE M040 Skeletal red clay loam with continuous surface layer of pebbles and stones.
CAPPRE M042 Skeletal red clay loam with continuous surface layer of pebbles and stones.
CAPPRE M071 Red-brown gravelly / pebbly loam with some cobbles.
CAPPRE M080 Skeletal red clay loam with continuous surface layer of pebbles.
CAPPRE M098 Skeletal red clay loam with continuous surface layer of pebbles and stones.
CAPPRE M076 Skeletal red clay loam with continuous surface layer of rounded pebbles and stones.
CAPPRE M087 Red-brown pebbly / gravelly / cobbly loam, with very minor

outcropping at surface.
CAPPRE M078 Pockets of red loam amongst large rocks / boulders.

Common Species: (Name - % of Sites, Range of Cover)
Rhynchosia cf. minima - 100%, <1% to <1%
Triodia wiseana - 100%, 25-33% to 50-70%
Mukia maderaspatana - 100%, <1% to 5-10%
Evolvulus alsinoides var. villosicalyx - 100%, <1% to <1%
Indigofera monophylla (Cape Preston form) - 100%, <1% to 1-5%
Triumfetta clementii - 91%, <1% to <1%
Cenchrus ciliaris - 91%, <1% to 5-10%
Gomphrena cunninghamii - 91%, <1% to <1%
Bonamia media var. villosa - 91%, <1% to <1%
Scaevola spinescens - 91%, <1% to 1-5%
Trachymene aff. oleracea (B61) - 82%, <1% to <1%
Corchorus aff. walcotti (K.J. Atkins 570) - 82%, <1% to 1-5%
Hybanthus aurantiacus - 82%, <1% to <1%
Hibiscus aff. platychlamys (M39.14) - 82%, <1% to 1-5%
Acacia bivenosa - 82%, <1% to 1-5%
Tephrosia aff. supina (M19-3) - 82%, <1% to <1%
Cymbopogon ambiguus - 82%, <1% to 10-25%
Solanum lasiophyllum - 82%, <1% to <1%
Phyllanthus maderaspatensis var. angustifolius - 82%, <1% to <1%
Trichodesma zeylanicum - 73%, <1% to <1%

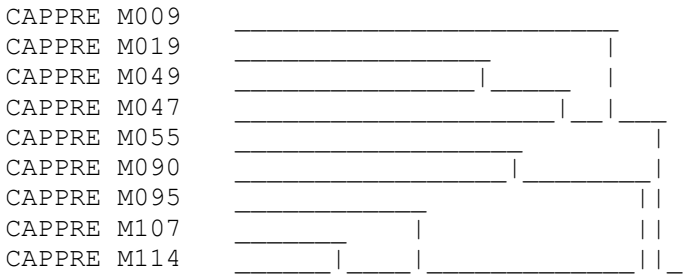
50 Group Level, Member: 38,

Average Number of Species / Site: 53
Sites from: CAPPRE - 10
Sites in Habitats: dn - 3 dns - 3 ds - 3 scr - 1

Common Species: (Name - % of Sites, Range of Cover)
Evolvulus alsinoides var. villosicalyx - 100%, <1% to 1-5%
Trichodesma zeylanicum - 100%, <1% to <1%
Hybanthus aurantiacus - 100%, <1% to 1-5%
Corchorus laniflorus - 100%, <1% to <1%
Triumfetta clementii - 100%, <1% to 1-5%
Leptopus decaisnei var. decaisnei - 90%, <1% to 5-10%
Bonamia media var. villosa - 90%, <1% to 1-5%
Acacia pyrifolia (slender, white) - 90%, <1% to 1-5%
Acacia bivenosa - 90%, <1% to 25-33%
Solanum lasiophyllum - 90%, <1% to <1%
Paspalidium clementii - 90%, <1% to 10-25%
Bidens bipinnata - 90%, <1% to <1%
Triodia wiseana - 90%, <1% to 50-70%
Trachymene aff. oleracea (B61) - 80%, <1% to <1%
Cenchrus ciliaris - 80%, <1% to 5-10%
Isotropis atropurpurea - 80%, <1% to <1%
Acacia ancistrocarpa - 80%, <1% to 5-10%
Corymbia hamersleyana - 70%, <1% to 10-25%
Rhynchosia cf. minima - 70%, <1% to 1-5%
Acacia coriacea - 70%, <1% to 10-25%

200 Floristic Group Level, Unit: 148,

Average Number of Species / Site: 53
Sites from: CAPPRE - 9
Sites in Habitats: dn - 3 dns - 3 ds - 3
Portion of Dendrogram: (Area and Site on left)



Vegetation Description:

CAPPRE M009 Scattered low Corymbia hamersleyana and Acacia coriacea subsp. pendens over Acacia monticola / A. bivenosa tall open shrubland over Petalostylis labicheoides shrubland over Indigofera monophylla low open shrubland and Triodia wiseana hummock grassland.

CAPPRE M019 Scattered low mallees of Corymbia hamersleyana over Acacia tumida tall shrubland to scrub over scattered Acacia ancistrocarpa, A. pyrifolia (slender), A. bivenosa shrubs over low open shrubland of Indigofera monophylla, Isotropis atropurpurea and Hibiscus

CAPPRE M049 Acacia coriacea / A. elachantha / Acacia tumida tall open shrubland to tall shrubland over Acacia bivenosa open shrubland over Scaevola spinescens / Indigofera monophylla low shrubland over Triodia wiseana / Cymbopogon ambiguus grassland.

CAPPRE M047 Acacia coriacea tall open shrubland to tall shrubland over Acacia bivenosa open shrubland to shrubland over Triodia wiseana / Cymbopogon obtectus mid-dense hummock grassland with lianes of Cassytha capillaris.

CAPPRE M055 Corymbia hamersleyana low open mallee woodland over Acacia bivenosa / A. monticola tall open shrubland over Hibiscus aff. platychlamys / Indigofera monophylla low open shrubland to shrubland over Triodia wiseana hummock grassland with lianes of Cassytha a

CAPPRE M090 Corymbia hamersleyana open low woodland over Acacia bivenosa high shrubland over Triodia wiseana mid-dense hummock grassland.

CAPPRE M095 Scattered low mallees of Corymbia hamersleyana over Acacia ancistrocarpa / Petalostylis labicheoides / Acacia bivenosa tall open shrubland to tall shrubland over Indigofera monophylla low open shrubland over Triodia pungens hummock grassland.

CAPPRE M107 Corymbia hamersleyana low mallee woodland over Acacia tumida / Petalostylis labicheoides thicket over scattered Acacia bivenosa and A. ancistrocarpa over Hibiscus low open shrubland and Triodia pungens hummock grassland.

CAPPRE M114 Scattered Corymbia hamersleyana over Acacia tumida open scrub over Triodia pungens hummock grassland.

Soil:

CAPPRE M009 Pebbly / gravelly red-brown loam, some sand in places.
CAPPRE M019 Red-brown gravelly / pebbly loam.
CAPPRE M049 Dull orange-brown loam with some pebbles on surface.
CAPPRE M047 Dull orange-brown loam with some pebbles on surface.
CAPPRE M055 Red-brown loam with pebbles below surface; wet after recent rain.
CAPPRE M090 Red clay loam with ~continuous surface layer of stones in bed.
CAPPRE M095 Red-brown gravelly / pebbly loam.
CAPPRE M107 Hard-setting red-brown gravelly / pebbly loam.
CAPPRE M114 Red clay loam with pebbles and stones on surface.

Common Species: (Name - % of Sites, Range of Cover)
Acacia bivenosa - 100%, <1% to 25-33%
Corchorus laniflorus - 100%, <1% to <1%
Triumfetta clementii - 100%, <1% to 1-5%
Hybanthus aurantiacus - 100%, <1% to 1-5%
Solanum lasiophyllum - 100%, <1% to <1%
Trichodesma zeylanicum - 100%, <1% to <1%
Evolvulus alsinoides var. villosicalyx - 100%, <1% to <1%
Paspalidium clementii - 89%, <1% to <1%
Acacia pyrifolia (slender, white) - 89%, <1% to 1-5%
Bonamia media var. villosa - 89%, <1% to <1%
Bidens bipinnata - 89%, <1% to <1%
Leptopus decaisnei var. decaisnei - 89%, <1% to 5-10%
Isotropis atropurpurea - 89%, <1% to <1%
Triodia wiseana - 89%, <1% to 50-70%
Corymbia hamersleyana - 78%, <1% to 10-25%
Trachymene aff. oleracea (B61) - 78%, <1% to <1%
Malvastrum americanum - 78%, <1% to <1%
Acacia coriacea - 78%, <1% to 10-25%
Acacia ancistrocarpa - 78%, <1% to 5-10%
Cenchrus ciliaris - 78%, <1% to 5-10%

200 Floristic Group Level, Unit: 149,

Average Number of Species / Site: 50
Sites from: CAPPRE - 1
Sites in Habitats: scr - 1
Portion of Dendrogram: (Area and Site on left)
CAPPRE M012 _____

Vegetation Description:
CAPPRE M012 Sparse low shrubs over sparse to open grasses and open to dense herbs.

Soil:
CAPPRE M012 Pockets of red clay loam between rocks.

Common Species: (Name - % of Sites, Range of Cover)
Polycarpaea longiflora (White form, M13-7) - 100%, 1-5% to 1-5%
Gomphrena cunninghamii - 100%, 10-25% to 10-25%
Indigofera monophylla (grey/green leaflet form) - 100%, 1-5% to 1-5%
Rhynchosia cf. minima - 100%, 1-5% to 1-5%
Acacia pyrifolia (slender, white) - 100%, 1-5% to 1-5%
Trachymene aff. oleracea (B61) - 100%, <1% to <1%
Cassia pruinosa x ?glutinosa - 100%, 1-5% to 1-5%
Abutilon aff. lepidum (4) - 100%, 1-5% to 1-5%
Enneapogon oblongus - 100%, 1-5% to 1-5%
Mukia aff. maderaspatana sp. C - 100%, 1-5% to 1-5%
Portulaca oleracea - 100%, <1% to <1%
Tephrosia aff. supina (M19-3) - 100%, 1-5% to 1-5%
Ptilotus auriculifolius - 100%, 1-5% to 1-5%
Eremophila forrestii x latrobei - 100%, 1-5% to 1-5%
Gomphrena canescens - 100%, 10-25% to 10-25%
Amaranthus interruptus - 100%, 1-5% to 1-5%
Triodia wiseana - 100%, 1-5% to 1-5%
Eriachne mucronata - 100%, 1-5% to 1-5%
Cymbopogon ambiguus - 100%, 1-5% to 1-5%
Cenchrus ciliaris - 100%, 1-5% to 1-5%

50 Group Level, Member: 39,

Average Number of Species / Site: 14
Sites from: WANGEL - 6
Sites in Habitats: rp - 3 smr - 2 scr - 1

Common Species: (Name - % of Sites, Range of Cover)
Jasminum didymum subsp. lineare - 83%, <1% to <1%
Trichosanthes cucumerina - 83%, <1% to <1%
Tinospora smilacina - 67%, <1% to <1%
Terminalia canescens - 67%, 1-5% to 5-10%
Clerodendrum floribundum var. angustifolium - 67%, <1% to 5-10%
Acacia coriacea - 67%, <1% to <1%
Flueggea virosa subsp. melanthesoides - 67%, <1% to <1%
Solanum lasiophyllum - 67%, <1% to <1%
Ficus platypoda - 50%, <1% to <1%
Brachychiton acuminatus - 50%, <1% to <1%
Rhagodia eremaea - 50%, <1% to <1%

200 Floristic Group Level, Unit: 150,

Average Number of Species / Site: 19
Sites from: WANGEL - 3
Sites in Habitats: rp - 3
Portion of Dendrogram: (Area and Site on left)
WANGEL 0010 _____
WANGEL 1114 _____|_____
WANGEL 0061 _____|_

Vegetation Description:
WANGEL 0010 Scattered low trees of Clerodendrum floribundum var. angustifolium~ Terminalia canescens and Brachychiton acuminatus over scattered tussock grasses of Cymbopogon ambiguus and Aristida burbidgeae
WANGEL 1114 Clerodendrum floribundum var. angustifolium low open woodland over Aristida burbidgeae very open tussock grassland
WANGEL 0061 Scattered trees of Brachychton acuminatus and Terminalia canescens over scattered tall shrubs of Flueggia virosa ssp. melanthesioides and Rhagodia eremaea over low scattered shrubs of Scaevola acacioides and Ptilotus obovatus

Soil:
WANGEL 0010 Red-brown loam~ amongst pebbles and boulders
WANGEL 1114 Red-brown and black angular boulders~ rocks and cobbles
WANGEL 0061

Common Species: (Name - % of Sites, Range of Cover)
Solanum lasiophyllum - 100%, <1% to <1%
Trichosanthes cucumerina - 100%, <1% to <1%
Brachychiton acuminatus - 100%, <1% to <1%
Flueggea virosa subsp. melanthesoides - 100%, <1% to <1%
Ficus platypoda - 100%, <1% to <1%
Rhagodia eremaea - 67%, <1% to <1%
Themeda triandra - 67%, <1% to <1%
Aristida burbidgeae - 67%, <1% to 5-10%
Jasminum didymum subsp. lineare - 67%, <1% to <1%
Capparis spinosa var. nummularia - 67%, <1% to <1%
Tinospora smilacina - 67%, <1% to <1%
Scaevola acacioides - 67%, <1% to <1%
Streptoglossa decurrens - 67%, <1% to <1%
Cynanchum floribundum - 67%, <1% to <1%

Terminalia canescens - 67%, 1-5% to 1-5%
Clerodendrum floribundum var. angustifolium - 67%, 1-5% to 5-10%
Paspalidium tabulatum (Whim Creek form) - 67%, <1% to <1%

200 Floristic Group Level, Unit: 151,

Average Number of Species / Site: 8
Sites from: WANGEL - 1
Sites in Habitats: smr - 1
Portion of Dendrogram: (Area and Site on left)
WANGEL 1128 _____

Vegetation Description:
WANGEL 1128 Clerodendrum floribundum var. angustifolium low open woodland over scattered Cymbopogon ambiguus tussock grassland

Soil:
WANGEL 1128 No visible soil; red-brown and black rocks and boulders

Common Species: (Name - % of Sites, Range of Cover)
Flueggea virosa subsp. melanthesoides - 100%, <1% to <1%
Euphorbia wheeleri - 100%, <1% to <1%
Mukia aff. maderaspatana (2) (grey scabrid serrate) - 100%, <1% to <1%
Acacia coriacea - 100%, <1% to <1%
Jasminum didymum subsp. lineare - 100%, <1% to <1%
Clerodendrum floribundum var. angustifolium - 100%, 5-10% to 5-10%
Triodia wiseana - 100%, <1% to <1%
Cymbopogon ambiguus - 100%, 1-5% to 1-5%

200 Floristic Group Level, Unit: 152,

Average Number of Species / Site: 12
Sites from: WANGEL - 2
Sites in Habitats: scr - 1 smr - 1
Portion of Dendrogram: (Area and Site on left)
WANGEL 0338 _____
WANGEL 1166 _____|____

Vegetation Description:
WANGEL 0338 Terminalia canescens low open woodland over scattered tall shrubs of Dichrostachys spicata
WANGEL 1166 Terminalia canescens low open woodland

Soil:
WANGEL 0338
WANGEL 1166 Red-brown and black boulders

Common Species: (Name - % of Sites, Range of Cover)
Terminalia canescens - 100%, 1-5% to 5-10%
Jasminum didymum subsp. lineare - 100%, <1% to <1%
Trichosanthes cucumerina - 100%, <1% to <1%
Tinospora smilacina - 100%, <1% to <1%
Acacia coriacea - 100%, <1% to <1%

50 Group Level, Member: 40,

Average Number of Species / Site: 20
Sites from: WANGEL - 3
Sites in Habitats: dnr - 3

Common Species: (Name - % of Sites, Range of Cover)
Acacia coriacea - 100%, <1% to 50-70%
Acacia holosericea - 100%, <1% to <1%
Solanum lasiophyllum - 100%, <1% to <1%
Triodia wiseana - 100%, <1% to 33-50%
Cassytha capillaris - 100%, <1% to <1%
Flueggea virosa subsp. melanthesoides - 100%, <1% to 1-5%
Pterocaulon sphacelatum - 67%, <1% to <1%
Tephrosia rosea var. clementii - 67%, <1% to <1%
Jacquemontia pannosa - 67%, <1% to <1%
Cymbopogon ambiguus - 67%, 10-25% to 25-33%
Indigofera monophylla (grey leaflet form) - 67%, <1% to <1%
Brachychiton acuminatus - 67%, <1% to 1-5%
Boerhavia gardneri - 67%, <1% to <1%
Jasminum didymum subsp. lineare - 67%, <1% to <1%

200 Floristic Group Level, Unit: 153,

Average Number of Species / Site: 25
Sites from: WANGEL - 2
Sites in Habitats: dnr - 2
Portion of Dendrogram: (Area and Site on left)
WANGEL 1094 _____
WANGEL 1099 _____|_

Vegetation Description:
WANGEL 1094 Scattered Brachychiton acuminatus low trees over Ehretia saligna high open shrubland over Triodia wiseana hummock grassland and Cymbopogon ambiguus open tussock grassland
WANGEL 1099 Acacia coriacea ssp. pendulans low open forest over scattered Flueggea virosa ssp. melanthesioides tall shrubs over Cymbopogon ambiguus grassland bordered by Triodia wiseana hummock grassland

Soil:
WANGEL 1094 Red-brown loam and~ mainly~ cobbles~ pebbles and shallow outcrop
WANGEL 1099 Boulder~ cobble~ pebble mix

Common Species: (Name - % of Sites, Range of Cover)
Cymbopogon ambiguus - 100%, 10-25% to 25-33%
Triodia wiseana - 100%, 1-5% to 33-50%
Tephrosia rosea var. clementii - 100%, <1% to <1%
Jasminum didymum subsp. lineare - 100%, <1% to <1%
Acacia coriacea - 100%, <1% to 50-70%
Acacia holosericea - 100%, <1% to <1%
Solanum lasiophyllum - 100%, <1% to <1%
Brachychiton acuminatus - 100%, <1% to 1-5%
Cassytha capillaris - 100%, <1% to <1%
Flueggea virosa subsp. melanthesoides - 100%, <1% to 1-5%

200 Floristic Group Level, Unit: 154,

Average Number of Species / Site: 13
Sites from: WANGEL - 1
Sites in Habitats: dnr - 1
Portion of Dendrogram: (Area and Site on left)
WANGEL 1106 _____

Vegetation Description:
WANGEL 1106 Terminalia canescens low open woodland over Themeda triandra perenial tussock grassland and Triodia wiseana hummock grassland

Soil:
WANGEL 1106 skeletal~ red-brown amongst boulders~ rocks~ cobbles and pebbles

Common Species: (Name - % of Sites, Range of Cover)
Triodia wiseana - 100%, <1% to <1%
Terminalia canescens - 100%, 5-10% to 5-10%
Acacia coriacea - 100%, <1% to <1%
Acacia holosericea - 100%, <1% to <1%
Themeda triandra - 100%, 50-70% to 50-70%
Cassytha capillaris - 100%, <1% to <1%
Pterocaulon sphacelatum - 100%, <1% to <1%
Cassia glutinosa - 100%, <1% to <1%
Flueggea virosa subsp. melanthesoides - 100%, <1% to <1%
Indigofera monophylla (grey leaflet form) - 100%, <1% to <1%
Jacquemontia pannosa - 100%, <1% to <1%
Boerhavia gardneri - 100%, <1% to <1%
Solanum lasiophyllum - 100%, <1% to <1%

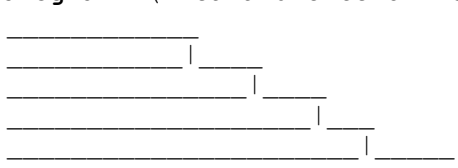
50 Group Level, Member: 41,

Average Number of Species / Site: 24
Sites from: WHICRE - 7
Sites in Habitats: rp - 5 rpv - 2

Common Species: (Name - % of Sites, Range of Cover)
Ehretia saligna var. saligna - 100%, <1% to 5-10%
Terminalia canescens - 100%, <1% to 33-50%
Scaevola spinescens - 100%, <1% to 5-10%
Tinospora smilacina - 100%, <1% to <1%
Paspalidium tabulatum (Whim Creek form) - 86%, <1% to 1-5%
Flueggea virosa subsp. melanthesoides - 71%, <1% to 1-5%
Aristida nitidula - 71%, <1% to 33-50%
Gomphrena cunninghamii - 71%, <1% to <1%
Solanum petrophilum - 57%, <1% to <1%
Rhynchosia cf. minima - 57%, <1% to <1%
Corchorus laniflorus - 57%, <1% to <1%
Jasminum didymum subsp. lineare - 57%, <1% to 1-5%
Sida rohlenae var. rohlenae - 57%, <1% to <1%
Gossypium australe (Whim Creek form) - 57%, <1% to 1-5%
Trichosanthes cucumerina - 57%, <1% to 10-25%
Clerodendrum tomentosum - 57%, <1% to <1%
Mukia maderaspatana - 57%, <1% to <1%
Carissa lanceolata - 57%, <1% to 10-25%
Boerhavia coccinea - 57%, <1% to 1-5%
Dichrostachys spicata - 57%, <1% to <1%

200 Floristic Group Level, Unit: 155,

Average Number of Species / Site: 27
Sites from: WHICRE - 5
Sites in Habitats: rp - 4 rpv - 1
Portion of Dendrogram: (Area and Site on left)



Vegetation Description:

WHICRE W139 Terminalia canescens, Carissa lanceolata, Ehretia saligna, low woodland over Jasminum didymum subsp. lineare, Scaevola spinescens (W139-2), Gossypium australe open shrubland over Aristida (W139-1) open grassland.
WHICRE W144 Terminalia canescens, Ehretia saligna low open woodland/high open shrubland Ventilago viminalis over scattered tall shrubs of Flueggia virosa over scattered shrubs of Gossypium australe (Whim Creek Form) and Scaevola spinescens and Aristida open hummock g
WHICRE W148 Terminalia canescens, Ehretia saligna var saligna low woodland to low open forest over Aristida nitidula very open grassland.
WHICRE W145 Scattered low trees of Ehretia saligna and Terminalia canesens over scattered low shrubs of Carissa lanceolata over scattered Aristida tussocks (=144) with scattered lianes of Tinospora and Trichosanthes.
WHICRE W150 Terminalia canescens low open forest over Scaevola spinescens open shrubland over Aristida sp. Scattered tussock grasses with Trichosanthes cucumerinam, Operculina aequisepala open lianes.

Soil:

WHICRE W139 Must be some somewhere! A few pockets of red-brown clay to loamy clay.
WHICRE W144 Red-brown clayey loam.
WHICRE W148 Dark reddish brown loam.
WHICRE W145 Orange-brown loam amongst cobbles.
WHICRE W150 Dark grey-brown loam - in pockets only.

Common Species: (Name - % of Sites, Range of Cover)

Paspalidium tabulatum (Whim Creek form) - 100%, <1% to 1-5%
Scaevola spinescens - 100%, <1% to 5-10%
Aristida nitidula - 100%, <1% to 33-50%
Flueggea virosa subsp. melanthesoides - 100%, <1% to 1-5%
Tinospora smilacina - 100%, <1% to <1%
Ehretia saligna var. saligna - 100%, <1% to 5-10%
Terminalia canescens - 100%, <1% to 33-50%
Trichosanthes cucumerina - 80%, <1% to 10-25%
Corchorus laniflorus - 80%, <1% to <1%
Cymbopogon ambiguus - 80%, <1% to 1-5%
Gossypium australe (Whim Creek form) - 80%, <1% to 1-5%
Rhynchosia cf. minima - 80%, <1% to <1%
Jasminum didymum subsp. lineare - 80%, <1% to 1-5%
Carissa lanceolata - 80%, <1% to 10-25%
Solanum petrophilum - 80%, <1% to <1%
Dichrostachys spicata - 80%, <1% to <1%
Gomphrena cunninghamii - 80%, <1% to <1%
Sida rohlenae var. rohlenae - 80%, <1% to <1%
Triodia wiseana - 60%, <1% to <1%
Leptopus decaisnei var. decaisnei - 60%, <1% to <1%

200 Floristic Group Level, Unit: 156,

Average Number of Species / Site: 16
Sites from: WHICRE - 2
Sites in Habitats: rp - 1 rpv - 1
Portion of Dendrogram: (Area and Site on left)
WHICRE W146 _____
WHICRE W153 _____|___

Vegetation Description:
WHICRE W146 Scattered low trees of Terminalia canescens and Ehretia saligna over scattered patches of Cenchrus ciliaris and Triodia.
WHICRE W153 Terminalia canescens (Ehretia saligna var. saligna), low open woodland to low woodland over Cenchrus ciliaris very open to open grassland over Scaevola spinescens open shrubland.

Soil:
WHICRE W146 Light brown loam amongst cobbles and boulders.
WHICRE W153 Red silty clay/pale red-brown loam.

Common Species: (Name - % of Sites, Range of Cover)
Boerhavia coccinea - 100%, <1% to <1%
Tinospora smilacina - 100%, <1% to <1%
Cenchrus ciliaris - 100%, <1% to 10-25%
Ehretia saligna var. saligna - 100%, 1-5% to 1-5%
Commicarpus australis - 100%, <1% to 1-5%
Terminalia canescens - 100%, <1% to 5-10%
Triodia epactia - 100%, <1% to <1%
Scaevola spinescens - 100%, <1% to 1-5%

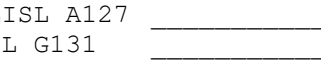
50 Group Level, Member: 42,

Average Number of Species / Site: 18
Sites from: ANGELISL - 3 GIDISL - 2 DOLISL - 2 BURPEN - 1 Coastal: 2
Sites in Habitats: rp - 3 rpv - 3 rpg - 1 rpr - 1

Common Species: (Name - % of Sites, Range of Cover)
Capparis spinosa var. nummularia - 88%, <1% to <1%
Paspalidium tabulatum (Burrup Form) - 88%, <1% to <1%
Flueggea virosa subsp. melanthesoides - 88%, <1% to 5-10%
Mukia maderaspatana - 88%, <1% to <1%
Tinospora smilacina - 75%, <1% to <1%
Rhagodia eremaea - 75%, <1% to <1%
Canavalia rosea - 62%, <1% to 25-33%
Rhynchosia cf. minima - 62%, <1% to <1%
Ipomoea costata - 62%, <1% to 33-50%
Phyllanthus ciccoides - 62%, <1% to <1%
Indigofera trita - 62%, <1% to <1%
Themeda sp. Burrup (B84) - 50%, <1% to 1-5%
Ficus opposita var. indecora - 50%, <1% to <1%
Alectryon oleifolius - 50%, <1% to 1-5%
Trichodesma zeylanicum - 50%, <1% to <1%
Pittosporum phylliraeoides var. phylliraeoides - 50%, <1% to 5-10%
Trichosanthes cucumerina - 50%, <1% to <1%

200 Floristic Group Level, Unit: 157,

Average Number of Species / Site: 19
Sites from: GIDISL - 1 ANGELISL - 1
Sites in Habitats: rp - 1 rpr - 1
Portion of Dendrogram: (Area and Site on left)



Vegetation Description:

ANGELISL A127 Ipomoea costata open heath over Themeda sp. Burrup (B84), Paspalidium tabulatum scattered grasses with Canavalia rosea lianes.
GIDISL G131 Ipomoea costata, Abutilon indicum var australiense, Pittosporum phylliraeoides var phylliraeoides, Flueggea virosa, Rhagodia preisii subsp. Obovata, Themeda sp. Burrup (B84), Sorghum plumosum very open tussock grassland.

Soil:

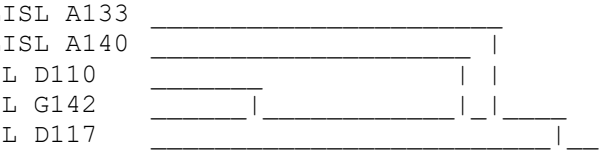
ANGELISL A127 Only in small pockets, skeletal.
GIDISL G131

Common Species: (Name - % of Sites, Range of Cover)

Rhagodia preissii subsp. obovata - 100%, 5-10% to 5-10%
Paspalidium tabulatum (Burrup Form) - 100%, <1% to <1%
Flueggea virosa subsp. melanthesoides - 100%, <1% to 5-10%
Themeda sp. Burrup (B84) - 100%, <1% to 1-5%
Sorghum plumosum - 100%, <1% to 1-5%
Indigofera trita - 100%, <1% to <1%
Ipomoea costata - 100%, 33-50% to 33-50%
Mukia maderaspatana - 100%, <1% to <1%
Trichosanthes cucumerina - 100%, <1% to <1%
Tinospora smilacina - 100%, <1% to <1%
Capparis spinosa var. nummularia - 100%, <1% to <1%

200 Floristic Group Level, Unit: 158,

Average Number of Species / Site: 19
Sites from: ANGELISL - 2 DOLISL - 2 GIDISL - 1 Coastal: 2
Sites in Habitats: rpv - 3 rp - 2
Portion of Dendrogram: (Area and Site on left)



Vegetation Description:

ANGELISL A133 [Inadequate data recorded for a vegetation description to be compiled.]
ANGELISL A140 Scattered tall shrubs. Ficus opposita (A140-1), Flueggea virosa ssp. melanthesoides scattered tall shrubs over Rhagodia eremaea, Cajanus scattered shrubs over Triodia anugusta (Burrup Form) scattered hummock grass.
DOLISL D110 Scattered low trees of Brachychiton acuminatus over tallopen shrubland of Pittosporum and Flueggia virosa over Rhagodia open shrubland Triodia angusta (Burrup Form), Triodia epactia (Burrup Form) open hummock grassland.
GIDISL G142 Scattered low trees of Pittosporum over scattered tall shrubs of Flueggia over scattered shrubs of Rhagodia and Abutilon over Triodia angusta (Burrup Form) very open hummock grassland and scattered Sorghum and patches of Canavalia.

DOLISL D117 Brachychiton acuminatus, Terminalia supranitifolia low open forest over Flueggia virosa ssp. melanthesoides, Phyllanthus open scrub, over Rhagodia eremaea shrubland.

Soil:
ANGELISL A133 None visible.
ANGELISL A140 Gravelly (angular) pebbly light brown loamy fine sand.
DOLISL D110 Loamy brown sand.
GIDISL G142
DOLISL D117 Thin, coarse brown loan. Lots of organic matter.

Common Species: (Name - % of Sites, Range of Cover)
Phyllanthus ciccoides - 100%, <1% to <1%
Rhagodia eremaea - 100%, <1% to <1%
Paspalidium tabulatum (Burrup Form) - 100%, <1% to <1%
Flueggea virosa subsp. melanthesoides - 100%, <1% to <1%
Rhynchosia cf. minima - 80%, <1% to <1%
Capparis spinosa var. nummularia - 80%, <1% to <1%
Canavalia rosea - 80%, <1% to <1%
Mukia maderaspatana - 80%, <1% to <1%
Pittosporum phylliraeoides var. phylliraeoides - 60%, <1% to <1%
Enchylaena tomentosa - 60%, <1% to <1%
Ficus opposita var. indecora - 60%, <1% to <1%
Tinospora smilacina - 60%, <1% to <1%
Trichodesma zeylanicum - 60%, <1% to <1%
Triodia angusta (Burrup Form) - 60%, <1% to 1-5%
Boerhavia burbidgeana - 60%, <1% to <1%
Indigofera trita - 60%, <1% to <1%

200 Floristic Group Level, Unit: 159,

Average Number of Species / Site: 10
Sites from: BURPEN - 1
Sites in Habitats: rpg - 1
Portion of Dendrogram: (Area and Site on left)
BURPEN B155 _____

Vegetation Description:
BURPEN B155 Inadequate data recorded for a vegetation description to be compiled.

Soil:
BURPEN B155 Well mulched, mostly loose broWn sandy loam <1% soil cover.

Common Species: (Name - % of Sites, Range of Cover)
Tinospora smilacina - 100%, <1% to <1%
Alectryon oleifolius - 100%, <1% to <1%
Ipomoea costata - 100%, <1% to <1%
Ficus opposita - 100%, <1% to <1%
Capparis spinosa var. nummularia - 100%, <1% to <1%
Brachychiton acuminatus - 100%, <1% to <1%
Ehretia saligna var. saligna - 100%, <1% to <1%
Rhagodia eremaea - 100%, <1% to <1%
Mukia maderaspatana - 100%, <1% to <1%
Cymbopogon ambiguus - 100%, <1% to <1%

50 Group Level, Member: 43,

Average Number of Species / Site: 26
Sites from: BURPEN - 8 DOLISL - 2 Coastal: 2
Sites in Habitats: rp - 6 rpr - 2 scr - 2

Common Species: (Name - % of Sites, Range of Cover)
Brachychiton acuminatus - 100%, to 10-25%
Tinospora smilacina - 100%, <1% to 5-10%
Acacia coriacea - 90%, 1-5% to 33-50%
Mukia maderaspatana - 90%, <1% to 1-5%
Rhagodia eremaea - 80%, 1-5% to 10-25%
Alectryon oleifolius - 80%, <1% to 5-10%
Pittosporum phylliraeoides var. phylliraeoides - 80%, <1% to 25-33%
Enchylaena tomentosa - 70%, <1% to 5-10%
Paspalidium tabulatum (Burrup Form) - 70%, <1% to 10-25%
Dichrostachys spicata - 60%, <1% to 10-25%
Ipomoea costata - 60%, <1% to 1-5%
Terminalia supranitifolia - 60%, <1% to 10-25%
Solanum horridum - 60%, <1% to 1-5%
Trichosanthes cucumerina - 60%, <1% to 5-10%
Scaevola spinescens - 60%, <1% to 10-25%
Flueggea virosa subsp. melanthesoides - 60%, <1% to 25-33%
Cleome viscosa - 60%, <1% to 1-5%
Abutilon fraseri - 60%, <1% to 25-33%
Phyllanthus maderaspatensis var. angustifolius - 50%, <1% to 1-5%
Trichodesma zeylanicum - 50%, <1% to 1-5%

200 Floristic Group Level, Unit: 160,

Average Number of Species / Site: 35
Sites from: BURPEN - 2
Sites in Habitats: rp - 1 rpr - 1
Portion of Dendrogram: (Area and Site on left)
BURPEN B002 _____
BURPEN B238 _____|_____

Vegetation Description:
BURPEN B002 Rockpile vegetation with grassland elements.
Ehretia saligna, Brachychiton acuminatus scattered low trees over Flueggia virosa ssp. Melanthesoides scattered tall shrubs over Dichrostachys spicata, Acacia coriacea,Rhagodia eremaea, Alectryon oleifolius, c
BURPEN B238 Eucalyptus victrix, Brachychiton acuminatus scattered low trees over Flueggea virosa subsp. melanthesoides, Acacia coriacea, Rhagodia preissii subsp. obovata, Dichrostachys spicata, Ehretia saligna var. saligna scattered shrubs to open shrubland over Acac

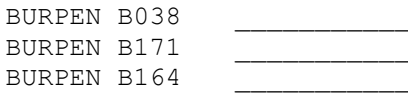
Soil:
BURPEN B002
BURPEN B238 Skeletal, in soil pockets.

Common Species: (Name - % of Sites, Range of Cover)
Tinospora smilacina - 100%, <1% to <1%
Brachychiton acuminatus - 100%, <1% to 5-10%
Rhynchosia cf. minima - 100%, <1% to 33-50%
Phyllanthus maderaspatensis var. angustifolius - 100%, <1% to <1%
Ehretia saligna var. saligna - 100%, 25-33% to 33-50%

Pittosporum phylliraeoides var. phylliraeoides - 100%, <1% to 5-10%
Acacia coriacea - 100%, 10-25% to 33-50%
Triodia epactia (Burrup Form) - 100%, 5-10% to 10-25%
Paspalidium tabulatum (Burrup Form) - 100%, <1% to 10-25%
Enchylaena tomentosa - 100%, <1% to 5-10%
Mukia maderaspatana - 100%, <1% to <1%
Trichosanthes cucumerina - 100%, <1% to 5-10%
Jasminum didymum subsp. lineare - 100%, <1% to <1%
Capparis spinosa var. nummularia - 100%, <1% to 10-25%
Flueggea virosa subsp. melanthesoides - 100%, 25-33% to 25-33%
Dichrostachys spicata - 100%, 10-25% to 10-25%
Alectryon oleifolius - 100%, <1% to 5-10%
Abutilon fraseri - 100%, <1% to <1%
Trichodesma zeylanicum - 100%, <1% to <1%
Clerodendrum tomentosum - 100%, <1% to 1-5%

200 Floristic Group Level, Unit: 161,

Average Number of Species / Site: 22
Sites from: BURPEN - 3
Sites in Habitats: rp - 2 rpr - 1
Portion of Dendrogram: (Area and Site on left)



Vegetation Description:
BURPEN B038 Brachychiton acuminatus, Pittosporum phylliraeoides Scattered Low Trees over Acacia coriacea, Ipomoea costata High Shrubland over Rhagodia eremaea Shrubland over low Triodia angusta (Burrup Form) open Hummock Grassland with Dicliptera armata, Commicarpus
BURPEN B171 Brachychiton acuminatus low open woodland over Flueggea virosa subsp. melanthesoides scattered tall shrubs over Terminalia supranitifolia, Scaevola spicata, Dichrostachys spicata, Acacia coriacea shrubland over Abutilon fraseri, Ptilotus obovatus low shru
BURPEN B164 Brachychiton acuminatus, Pittosporum phylliraeoides, Terminalia supranitifolia low woodland over Scaevola scabrida, Rhagodia eremaea, Acacia coriacea shrubland over scattered Cymbopogon ambiguus.

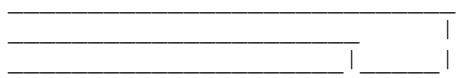
Soil:
BURPEN B038
BURPEN B171 Brown loose loamy soil where present.
BURPEN B164 Red-brown sandy loam in pockets beneath rocks.

Common Species: (Name - % of Sites, Range of Cover)
Flueggea virosa subsp. melanthesoides - 100%, <1% to 1-5%
Solanum horridum - 100%, <1% to <1%
Brachychiton acuminatus - 100%, to 5-10%
Mukia maderaspatana - 100%, <1% to 1-5%
Alectryon oleifolius - 100%, <1% to 1-5%
Dichrostachys spicata - 100%, <1% to 5-10%
Acacia coriacea - 100%, 5-10% to 10-25%
Tinospora smilacina - 100%, <1% to 1-5%
Rhagodia eremaea - 100%, 5-10% to 10-25%
Commicarpus australis - 67%, 5-10% to 10-25%
Enchylaena tomentosa - 67%, <1% to 1-5%
Paspalidium tabulatum (Burrup Form) - 67%, <1% to <1%
Aerva javanica - 67%, to <1%
Triodia angusta (Burrup Form) - 67%, 1-5% to 10-25%
Scaevola spinescens - 67%, 1-5% to 10-25%

Pittosporum phylliraeoides var. phylliraeoides - 67%, 1-5% to 25-33%
Terminalia supranitifolia - 67%, 10-25% to 10-25%
Abutilon fraseri - 67%, <1% to 25-33%
Cleome viscosa - 67%, <1% to <1%

200 Floristic Group Level, Unit: 162,

Average Number of Species / Site: 23
Sites from: BURPEN - 3
Sites in Habitats: rp - 3
Portion of Dendrogram: (Area and Site on left)



Vegetation Description:
BURPEN B028 Brachychiton acuminatus scattered low trees over Dichrostachys spicata, Ipomoea costata, Pittosporum phylliraeoides scattered tall shrubs over Rhagodia eremaea scattered shrubs over Cymbopogon ambiguus scattered grasses with Rhynchosia sp. Burrup scattere
BURPEN B050 Brachychiton sccuminata, Acacia coriacea, Ipomea costata, Ficus (50-1) high open shrubland over Rhagodia eremaea, Scaevola spinescens scattered low shrubs over Cenchrus ciliaris very open grassland with Dicliptera armata scattered to very open annual herb
BURPEN B074 25-30% of rockpile vegetated.
Brachychiton accuminata, Termianlia canescens, Fics ?platypoda (74-2), Terminalia supranitifolia high open shrubland to low open woodland over Acacia coriacea, Ipomea costata, Triodia epactia scattered hummock grasses,

Soil:
BURPEN B028
BURPEN B050 Rich brown loam.
BURPEN B074 Reddish brown loam with aggregates at base.

Common Species: (Name - % of Sites, Range of Cover)
Brachychiton acuminatus - 100%, <1% to 10-25%
Tinospora smilacina - 100%, <1% to 1-5%
Ipomoea costata - 100%, 1-5% to 1-5%
Trichosanthes cucumerina - 100%, <1% to 1-5%
Rhagodia eremaea - 100%, 1-5% to 1-5%
Mukia maderaspatana - 100%, 1-5% to 1-5%
Cymbopogon ambiguus - 100%, 1-5% to 1-5%
Pittosporum phylliraeoides var. phylliraeoides - 67%, 1-5% to 1-5%
Trachymene aff. oleracea (B61) - 67%, <1% to <1%
Jasminum didymum subsp. lineare - 67%, 1-5% to 1-5%
Paspalidium tabulatum (Burrup Form) - 67%, <1% to 1-5%
Ficus platypoda - 67%, 1-5% to 25-33%
Terminalia supranitifolia - 67%, <1% to 10-25%
Abutilon fraseri - 67%, <1% to 1-5%
Acacia coriacea - 67%, 1-5% to 5-10%
Dicliptera armata - 67%, <1% to 1-5%
Clerodendrum tomentosum - 67%, <1% to 1-5%
Rhynchosia sp. Burrup (82-1C) - 67%, 1-5% to 1-5%

200 Floristic Group Level, Unit: 163,

Average Number of Species / Site: 25
Sites from: DOLISL - 2 Coastal: 2
Sites in Habitats: scr - 2
Portion of Dendrogram: (Area and Site on left)
DOLISL D098 _____
DOLISL D099 _____|___

Vegetation Description:
DOLISL D098 Scaevola spinescens, Acacia bivenosa, Pittosporum phylliraeoides var phylliraeoides scattered shrubs over low open shrubland over Triodia wiseana (Burrup Form) closed hummock grassland.
DOLISL D099 Acacia coriacea, Terminalia supranitifolia low open (to low closed) forest (or shrubland /scrub with Pittosporum phylliraeoides, Ehretia saligna, Brachychiton acuminatus) high open shrubland over Rhagodia preissii, Adriana tomentosa open shrubland over sc

Soil:
DOLISL D098 S side coarse brown sand with shell grit, N side dark brown sandy loam where visible.
DOLISL D099 Dark brown sand, organic matter, with lots of shell/coral pieces. Surface covered with shell/coral litter. 10% coral/shell 90%.

Common Species: (Name - % of Sites, Range of Cover)
Pterocaulon sphacelatum - 100%, <1% to 1-5%
Scaevola spinescens - 100%, 1-5% to 5-10%
Enchylaena tomentosa - 100%, <1% to <1%
Tinospora smilacina - 100%, 1-5% to 5-10%
Streptoglossa decurrens - 100%, <1% to 1-5%
Phyllanthus maderaspatensis var. angustifolius - 100%, 1-5% to 1-5%
Trichodesma zeylanicum - 100%, 1-5% to 1-5%
Alectryon oleifolius - 100%, 1-5% to 1-5%
Adriana tomentosa - 100%, <1% to 1-5%
Acacia coriacea - 100%, 1-5% to 10-25%
Cleome viscosa - 100%, <1% to <1%
Pittosporum phylliraeoides var. phylliraeoides - 100%, <1% to 1-5%
Brachychiton acuminatus - 100%, <1% to 1-5%

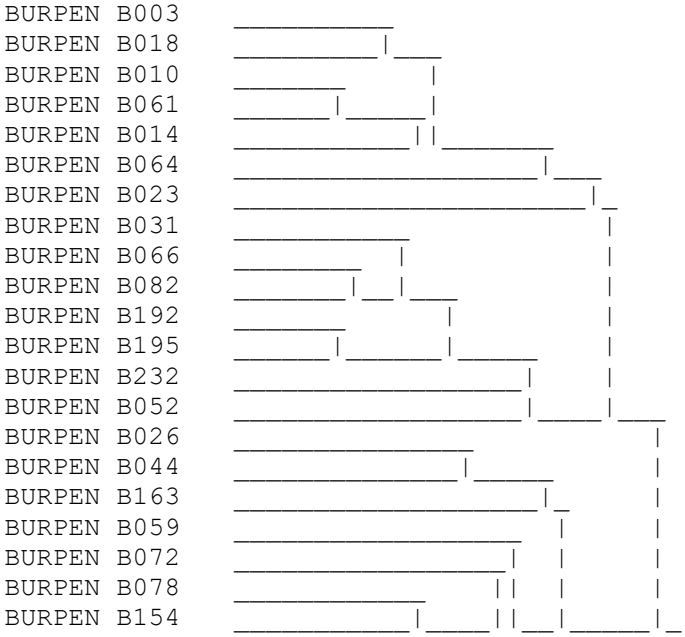
50 Group Level, Member: 44,

Average Number of Species / Site: 33
Sites from: BURPEN - 40 DOLISL - 9 Coastal: 3
Sites in Habitats: rp - 20 rpv - 12 rpr - 6 dnr - 4 rpg - 2 smr - 2 sr - 2 dn - 1

Common Species: (Name - % of Sites, Range of Cover)
Flueggea virosa subsp. melanthesoides - 94%, to 1-5%
Acacia coriacea - 92%, <1% to 5-10%
Brachychiton acuminatus - 90%, <1% to 10-25%
Paspalidium tabulatum (Burrup Form) - 88%, <1% to 1-5%
Scaevola spinescens - 88%, <1% to 1-5%
Mukia maderaspatana - 84%, <1% to 1-5%
Cymbopogon ambiguus - 84%, <1% to 1-5%
Triodia epactia (Burrup Form) - 76%, <1% to 33-50%
Triumfetta appendiculata (Burrup Form) - 73%, <1% to 1-5%
Tinospora smilacina - 71%, <1% to <1%
Alectryon oleifolius - 69%, <1% to 1-5%
Terminalia supranitifolia - 67%, <1% to 5-10%
Rhagodia eremaea - 67%, <1% to 1-5%
Solanum horridum - 65%, <1% to <1%
Ipomoea costata - 65%, <1% to 5-10%
Jasminum didymum subsp. lineare - 59%, <1% to 1-5%
Trichodesma zeylanicum - 59%, <1% to 1-5%
Ehretia saligna var. saligna - 57%, to 1-5%
Abutilon fraseri - 57%, <1% to 1-5%
Pterocaulon sphacelatum - 57%, <1% to 5-10%

200 Floristic Group Level, Unit: 164,

Average Number of Species / Site: 32
Sites from: BURPEN - 21
Sites in Habitats: rpv - 8 rp - 7 rpr - 3 dn - 1 dnr - 1 rpg - 1
Portion of Dendrogram: (Area and Site on left)



Vegetation Description:
BURPEN B003 Scattered Corymbia hamersleyana (low) over Dichtostachys/Acacia

tall open shrubland over scattered low shrub over Themeda, Chrysopogon and Themeda open grassland with Dicliptera armata herbland.

BURPEN B018 Scattered Low Trees of Brachychiton acuminatus over scattered Tall Shrubs to Tall Open Shrubland of Flueggia virosa over Scattered Shrubs of Dichrostachys spicata (to Open Shrubland) over Scattered mixed Low Shrubs over Cymbopogon, Themeda, Eriachne, Cenc

BURPEN B010 Rock pockets <=10% of the plot. Within them, they have cover >60%.

Scattered Clerodendrum, Brachychiton, Ehretia (low trees) over tall open shrubland of Flueggia, Acacia coriacea over scatterd shruba of Dichrostachys, Pittosporum, Rhagodia eremaea, Scaev

BURPEN B061 Scattered trees of Brachychiton acuminatus and Ehretia saligna over mixed tall open shrubland over scattered low shrubs and Dicliptera annual herbland with lianes of Porona commixta.

BURPEN B014 Scattered Dichrostachys spicata, Flueggia virosa, Ehretia saligna, Acacia coriacea tall shrubs over scattered Rhagodia eremaea, Scaevola spinescens shrubs over very open Cenchrus ciliaris, Triodia epactia (Burrup Form) Tussock/Hummock grassland and Rhynch

BURPEN B064 Scattered tall shrubs of Terminalia supranitifolia over Acacia coriacea high open shrubland over Scaevola (64-1), Dicrostachys scattered shrubs over Aerva javanica low open shrubland and patches of Triodia open hummock grassland.

BURPEN B023 Ehretia saligna, Brachychiton acuminata, Terminalia supranitifolia, Ipomoea costata scattered tall shrubs over Dichrostachys spicata, Enchylaena tomentosa, Rhagodia eremaea scattered shrubs.

BURPEN B031 Scattered Low Trees of Brachychiton acuminatus over Scattered Takk Shrubs of Ehretia, Flueggia over Scattered Shrubs to Open Shrubland of Abultilon, Terminalia, Rhagodia over Scattered Low Shrubs and Open Annual Herbland of Dicliptera armata.

BURPEN B066 Scattered low trees of Ehretia saligna and Brachychiton acuminatus over scattered tall shrubs of Terminalia supranitifolia over scattered shrubs of Acacia coriacea, Rhagodia eremaea, Grevillea pyramidalis, Ipomoea costata and Scaevola spinescens over scat

BURPEN B082 Terminalia canescens high open shrubland (low open woodland) over Acacia coriacea, Flueggia virosa high open shrubland over Scaevola spinescens, Rhagodia eremaea open shrubland over Triodia epactia (Burrup Form), Triodia angusta (Burrup Form) patches and

BURPEN B192 Brachychiton acuminatus, Terminalia supranatifolia, Clerodendrum tomentosum scattered low trees over Acacia coriacea, Flueggea virosa, Ficus playtpoda scattered talls shrubs over Rhagodia eremaea, Abutilon (tall), Ipomoea costata scattered shrubs over

BURPEN B195 Small pockets of vegetation 10-15 m diameter, Eucalyptus victrix, Eucalyptus sp., Ehretria, Clerodendrum, and occassional Brachychiton acuminatus scattered low trees over Flueggea, Acacia coriacea and Dicrostachysscattered tall shrubs over Rhagodia, Abuti

BURPEN B232 Eucalyptus xerothermica (232-2), Brachychiton acuminatus low scattered trees, low open woodland over Acacia coriacea, Rhagodia preissii subsp. obovata, Scaevola spinescens, Flueggea virosa, Abutilon sp. (B232-1) shrubland over Triodia angusta (Burrup Form

BURPEN B052 Scattered shrubs of Brachychiton, Acacia coriacea, Scaevola spinescens, Rhagodia eremaea, Terminalia over scattered low shrubs of Melhania and Alectryon over scattered patches of Triodia angusta (Burrup Form) and Themeda, with low lianes of Rhynchosia

BURPEN B026 Ficus platypoda var. G, Brachychiton acuminatus low open woodland over Terminalia supranitifolia, Ipomoea costata scattered shrubs over Indigofera monophylla scattered low shrubs over Triodia epactia (Burrup Form), Cymbopogon ambigus very open hummock/tus

BURPEN B044 Terminalia canescens, Brachychiton acuminatus scattered low trees over Acacia coriacea scattered shrubs over Triodia epactia (Burrup Form)

scattred hummock grass.
BURPEN B163 High shrubland (> 2 m, 10-30%) Dichrostachys spicata, Flueggea virosa, Brachychiton acuminatus over 30-70% mixed Cymbopogon, Triodia grassland 2-10% Cyperus sedge 10-30% Dicliptera armata herbs. Acacia coriacea, Brachychiton acuminatus, Terminalia sup
BURPEN B059 Brachychiton acuminatus scattered low trees over Terminalia supranitifolia (Flueggea virosa subsp. melanthesoides) high open shrubland over Triodia epactia (Burrup Form) Cymbopogon ambiguus very open hummock/tussock grassland with Dicliptera armata very o
BURPEN B072 Inadequate data recorded for a vegetation description to be completed.
BURPEN B078 [Inadequate data recorded for a vegetation description to be completed]
BURPEN B154 Inadequate data recorded for a vegetation description to be compiled.

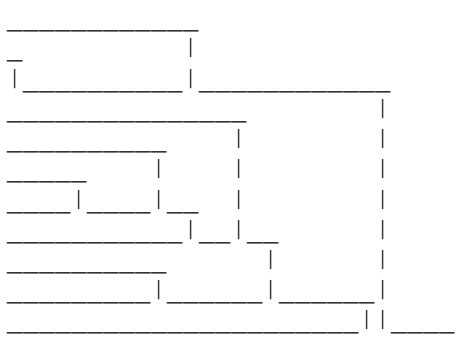
Soil:
BURPEN B003 Red-brown gravelly loam amongst cobbles and boulders.
BURPEN B018 Bright light brown (orange brown) loam.
BURPEN B010 Under shrub patches on slope is >5 cm of litter in cracks between rocks. Loose or compact brown loam in places.
BURPEN B061
BURPEN B014 Brown loam (a bit greyish) between cobbles and boulders.
BURPEN B064 Fine brown sand.
BURPEN B023
BURPEN B031
BURPEN B066
BURPEN B082 Orange brown loam between cobbles (vegetated patch).
BURPEN B192 Clayey loam, lots of organic matter, pale brown with some calcerous nodules.
BURPEN B195 Clayey loam, reddish-brown, lots of organic matter.
BURPEN B232 Skeletal
BURPEN B052 Volcanic.
BURPEN B026 Rock.
BURPEN B044 Rock, no soil.
BURPEN B163 Red sandy loam
BURPEN B059 None
BURPEN B072 Organic, dark loamy.
BURPEN B078 Reddish brown loamy clay at base of rockpile. Red sandy loam in pockets on rockpile.
BURPEN B154 Brown sandy loam. Some finer clay particles present, <20%. Total soil cover <5%.

Common Species: (Name - % of Sites, Range of Cover)
Mukia maderaspatana - 95%, <1% to <1%
Paspalidium tabulatum (Burrup Form) - 95%, <1% to <1%
Flueggea virosa subsp. melanthesoides - 95%, <1% to 1-5%
Acacia coriacea - 95%, <1% to 1-5%
Brachychiton acuminatus - 90%, <1% to 5-10%
Jasminum didymum subsp. lineare - 86%, <1% to <1%
Tinospora smilacina - 86%, <1% to <1%
Triumfetta appendiculata (Burrup Form) - 86%, <1% to <1%
Triodia epactia (Burrup Form) - 86%, <1% to 1-5%
Cymbopogon ambiguus - 81%, <1% to <1%
Terminalia supranitifolia - 81%, <1% to 5-10%
Ipomoea costata - 81%, <1% to 1-5%
Dicliptera armata - 76%, <1% to 5-10%
Rhagodia eremaea - 76%, <1% to 1-5%
Scaevola spinescens - 76%, <1% to <1%

Alectryon oleifolius - 62%, <1% to <1%
Solanum horridum - 62%, <1% to <1%
Rhynchosia cf. minima - 62%, <1% to 1-5%
Dichrostachys spicata - 62%, <1% to 5-10%
Abutilon fraseri - 57%, <1% to <1%

200 Floristic Group Level, Unit: 165,

Average Number of Species / Site: 25
Sites from: DOLISL - 6 BURPEN - 5 Coastal: 1
Sites in Habitats: rp - 7 rpv - 2 sr - 1 rpr - 1
Portion of Dendrogram: (Area and Site on left)



Vegetation Description:

BURPEN B035 [Inadequate data recorded for a vegetation description to be completed.]
BURPEN B173 Inadequate data recorded for a vegetation description to be compiled.
BURPEN B174 Inadequate data recorded for a vegetation description to be compiled.
BURPEN B080 Inadequate data recorded for a vegetation description to be compiled.
BURPEN B160 Mainly trees of Ficus virens, Ficus platypoda and Terminalia supranitifolia, Brachychiton acuminatus scattered low trees over Flueggia virosa, Rhagodia eremaea, Scaevola spinescens scattered tall shrubs over Acacia coriacea, Alectryon oleifolius, scattere
DOLISL D100 Pittosporum phylliraeoides, Brachychiton accuminatus and Terminalia supranitifolia scattered tall shrubs to scattered low trees over Scaevola spinescens, Rhagodia eremaea scattered shrubs.
DOLISL D108 Scattered low trees of Brachychiton, Pittosporum, Eucalyptus victrix and Clerodendrum over scattered tall shrubs of Acacia coriacea and Flueggia virosa over scattered shrubs of Scaevola, Rhagodia, Terminalia supranitifolia and Ipomoea costata.
DOLISL D089 Scattered trees of Ehretia saligna and Brachychiton acuminatus over scattered tall shrubs of Ficus platypoda over scattered shrubs of Flueggia, Rhagodia, Scaevola.
DOLISL D087 Scattered trees of Brachychiton acuminatus and Ehretia saligna over Rhagodia eremaea, Terminalia supranitifolia scattered shrubs of Scaevola spinescens, Acacia coriacea.
DOLISL D114 Terminalia canescens, Brachychiton acuminatus, Ehretia saligna var saligna scattered low trees over Flueggea virosa, Acacia coriacea, Ficus opposita var indecora, Jasminum didymum subsp. lineare, Plumbago zeylanica scattered shrubs over Rhagodia eremaea,
DOLISL D106 Terminalia supranitifolia, Brachychiton acuminatua, Ficus platypoda (106-2), Ehretia saligna high shrubland (to low woodland over Flueggea virosa ssp. melanthesioides open shrubland over Rhagodia preissii subsp obovata low open shrubland

Soil:

BURPEN B035
BURPEN B173 Two different soils: (1) Brown clay, calcrete present, supports Triodia. (2) Red sandy loam, coarse grained rock present
BURPEN B174 Red clay in open, covered with layer of organic material under Ficus etc. Approx. 10% cover.
BURPEN B080 Where visible, a reddish brown loam
BURPEN B160 Skeletal, red, fine clayey soil with medium-coarse gravel.
DOLISL D100 Skeletal dark brown crumbly coarse loam with organic matter.
DOLISL D108 Light brown, fine sandy loam.
DOLISL D089 Light brown loamy fine to medium sand.
DOLISL D087 Orange brown loamy fine sand between cobbles and boulders.
DOLISL D114 Gritty red loam, loose in crevices.
DOLISL D106 Small pockets with vegetation beneath rockpile.

Common Species: (Name - % of Sites, Range of Cover)
Brachychiton acuminatus - 100%, <1% to 1-5%
Paspalidium tabulatum (Burrup Form) - 100%, <1% to <1%
Acacia coriacea - 100%, <1% to 1-5%
Flueggea virosa subsp. melanthesoides - 100%, to <1%
Scaevola spinescens - 100%, <1% to <1%
Alectryon oleifolius - 100%, <1% to <1%
Rhagodia eremaea - 91%, <1% to <1%
Terminalia supranitifolia - 82%, <1% to <1%
Solanum horridum - 82%, <1% to <1%
Tinospora smilacina - 82%, <1% to <1%
Mukia maderaspatana - 73%, <1% to <1%
Pterocaulon sphacelatum - 73%, <1% to <1%
Ehretia saligna var. saligna - 73%, <1% to <1%
Cymbopogon ambiguus - 64%, <1% to <1%
Enchylaena tomentosa - 64%, <1% to <1%
Clerodendrum tomentosum - 64%, <1% to <1%
Jasminum didymum subsp. lineare - 55%, <1% to 1-5%
Pittosporum phylliraeoides var. phylliraeoides - 55%, <1% to <1%

200 Floristic Group Level, Unit: 166,

Average Number of Species / Site: 25
Sites from: DOLISL - 3 Coastal: 2
Sites in Habitats: rpr - 2 rp - 1
Portion of Dendrogram: (Area and Site on left)
DOLISL D094 _____
DOLISL D103 _____|_____
DOLISL D125 _____|__

Vegetation Description:
DOLISL D094 Brachychiton acuminatus, terminalia canescens low woodland over Flueggea virosa, Acacia bivenosa open shrubland over Corchorus walcottii, Pittosporum phylliraeoides var phylliraeoides, Indigofera monophylla low open shrubland over Triodia epactia (Burrup
DOLISL D103 Low woodland (<10 m, 10-30%) Brachychiton acuminatus, Pittosporum phylliraeiodes, Acacia coriaceae, 2-10% Triodia epactia (Burrup Form). Brachychiton acuminata, Pittosporum phylliraeoides high shrubland low woodland over Acacia coriacea (103D-1) scattered
DOLISL D125 High shrubland over Scaevola spinescens, Ipomoea costata scattered low shrubs.

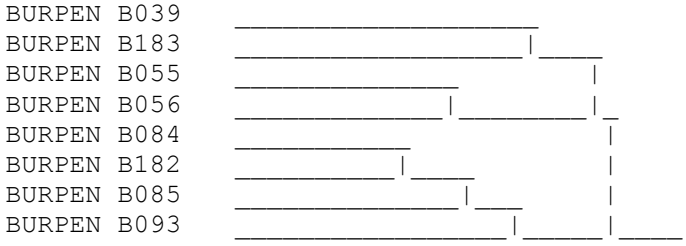
Soil:
DOLISL D094 Red-brown skeletal, but some soil pockets.
DOLISL D103 None on rock pile itself, but small pockets beneath of skeletal red-brown sandy soil.

DOLISL D125

Common Species: (Name - % of Sites, Range of Cover)
Scaevola spinescens - 100%, <1% to <1%
Ipomoea costata - 100%, <1% to <1%
Brachychiton acuminatus - 100%, 10-25% to 10-25%
Cymbopogon ambiguus - 100%, <1% to <1%
Pittosporum phylliraeoides var. phylliraeoides - 100%, 1-5% to 10-25%
Flueggea virosa subsp. melanthesoides - 100%, <1% to 1-5%
Rhagodia preissii subsp. obovata - 100%, <1% to <1%
Boerhavia gardneri - 67%, <1% to <1%
Triumfetta appendiculata (Burrup Form) - 67%, <1% to <1%
Trichodesma zeylanicum - 67%, <1% to <1%
Terminalia canescens - 67%, 5-10% to 5-10%
Ficus opposita var. indecora - 67%, <1% to <1%
Streptoglossa decurrens - 67%, <1% to <1%
Ficus platypoda - 67%, <1% to <1%
Pterocaulon sphacelatum - 67%, <1% to <1%
Cleome viscosa - 67%, <1% to <1%
Acacia bivenosa - 67%, <1% to <1%
Acacia coriacea - 67%, <1% to <1%
Trichosanthes cucumerina - 67%, <1% to <1%
Solanum horridum - 67%, <1% to <1%

200 Floristic Group Level, Unit: 167,

Average Number of Species / Site: 36
Sites from: BURPEN - 8
Sites in Habitats: dnr - 3 rpv - 2 smr - 2 rp - 1
Portion of Dendrogram: (Area and Site on left)



Vegetation Description:
BURPEN B039 Originally called B37, specimens will be numbered B37.
BURPEN B183 Scattered low trees of Ehretia and Brachychiton over scattered tall shrubs of Flueggea, Ipomoea costata, Terminalia supranitifolia over scattered shrubs of Rhagodia, Scaevola over Triodia open hummock grassland with lianes of Rhynchosia (green sticky) and
BURPEN B055 Terminalia canescens, Corymbia hamersleyana, Brachychiton acuminatus (Ehretia saligna) low woodland over Rhagodia preissii subsp. obovata, Ptilotus obovata, Scaevola spinescens shrubland over Themeda, Triodia epactia (Burrup Form) open tussock/hummock gra
BURPEN B056 Terminalia canescens low open forest over Indigofera monophylla shrubland over Dicliptera armata very open annual herbland.
BURPEN B084 Scattered low trees of Brachychiton acuminatus, Corymbia hamersleyana over scattered shrubs of Acacia coriacea, Ipomoea costata, Dicrostachys spicata over scattered low shrubs of Corchorus over Triodia epactia (Burrup Form), Themeda, Cymbopogon grassland.
BURPEN B182 Scattered low trees of Corymbia hamersleyana, Ipomoea costata, Terminalia supranitifolia over scattered tall shrubs of Flueggea virosa over scattered shrubs of Scaevola spinescens, Acacia (subterete), Cajanus and Rhagodia over scattered low shrubs of Corc
BURPEN B085 Scattered low trees of Corymbia hamersleyana over scattered tall

shrubs of Acacia cf. pyrifolia (green slender) over scattered shrubs of Acacia ?arida over Themeda, Triodia mid-dense to dense grassland. Rock piles with scattered Brachychiton acuminatus an

BURPEN B093 Terminalia canescens/Ehretia saligna/Brachychiton acuminatus low woodland over Themeda sp. Burrup (B84) tusssock grassland.

Soil:

BURPEN B039 Skeletal red-brown, rocks and boulders.
BURPEN B183
BURPEN B055 Pockets of sandy soil beneath slabs and rocks.
BURPEN B056 Colluvial grey-brown, beneath rocks.
BURPEN B084 Light brown loam (orange brown surface).
BURPEN B182 Light brown (orangish).
BURPEN B085 Brown clayey loam.
BURPEN B093

Common Species: (Name - % of Sites, Range of Cover)

Indigofera monophylla (Burrup form) - 100%, <1% to <1%
Flueggea virosa subsp. melanthesoides - 100%, <1% to <1%
Scaevola spinescens - 100%, <1% to <1%
Cymbopogon ambiguus - 100%, <1% to <1%
Themeda sp. Burrup (B84) - 100%, <1% to 50-70%
Brachychiton acuminatus - 100%, <1% to 5-10%
Triumfetta clementii - 88%, <1% to <1%
Triodia epactia (Burrup Form) - 88%, <1% to 33-50%
Rhynchosia sp. Burrup (82-1C) - 88%, <1% to 33-50%
Corchorus walcottii - 88%, <1% to <1%
Paspalidium tabulatum (Burrup Form) - 75%, <1% to <1%
Acacia coriacea - 75%, <1% to <1%
Abutilon fraseri - 75%, <1% to <1%
Dichrostachys spicata - 75%, <1% to <1%
Evolvulus alsinoides var. villosicalyx - 75%, <1% to <1%
Mukia maderaspatana - 75%, <1% to <1%
Tinospora smilacina - 75%, <1% to <1%
Triumfetta appendiculata (Burrup Form) - 75%, <1% to <1%
Cleome viscosa - 62%, <1% to <1%
Ptilotus obovatus - 62%, <1% to <1%

200 Floristic Group Level, Unit: 168,

Average Number of Species / Site: 51
Sites from: BURPEN - 4
Sites in Habitats: rp - 2 rpg - 1 sr - 1
Portion of Dendrogram: (Area and Site on left)

BURPEN B079 _____
BURPEN B169 _____|_____
BURPEN B090 _____ |
BURPEN B091 _____|_____|__

Vegetation Description:

BURPEN B079 Acacia pyrifolia, Acacia bivenosa, Ehretia saligna, Corymbia hamersleyana, low open woodland to high open shrubland over Acacia orthocarpa, Acacia coriacea, Scaevola spinescens shrubland over Corchorus, Ptilotus obovata, Inidgofera monophylla low open hea

BURPEN B169 Brachychiton acuminatus, Acacia coriacea, Ehretia saligna high open shrubland over Terminalia supranitifolia, Cassia glutinosa, Grevillea pyramidalis, Dicrostachys spicatus, Flueggea virosa ssp. melanthesioides, Scaevola spinescens, Stylobasium spathulatu

BURPEN B090 Ficus platypoda var. E, Flueggea virosa subsp. melanthesoides scattered tall trees to low trees over Scaevola spinescens, Ficus opposita

var.indecora, Acacia coriacea open shrubland (2-10%, 1-2 m) over very open herbland and mixed hummock and tussock gras
BURPEN B091 Acacia coriacea Scaevola spinescens scattered shrubs over Indigofera monophylla/ Corchorus sp/ Ptilotus ?obovatus low shrubland over Themeda sp. Burrup (B84) tussock/grassland.

Soil:
BURPEN B079 Skeletal fine grainy loam, some clay, dark brown but not chocolate.
BURPEN B169 Brown silty loam with lots of coarse fragments - gravel, aggregate.
BURPEN B090
BURPEN B091 Light pinky sandy soil - skeletal.

Common Species: (Name - % of Sites, Range of Cover)
Evolvulus alsinoides var. villosicalyx - 100%, <1% to 1-5%
Triodia epactia (Burrup Form) - 100%, <1% to 25-33%
Paspalidium tabulatum (Burrup Form) - 100%, <1% to 1-5%
Corchorus walcottii - 100%, <1% to 10-25%
Trichodesma zeylanicum - 100%, <1% to <1%
Cymbopogon ambiguus - 100%, <1% to 1-5%
Themeda sp. Burrup (B84) - 100%, <1% to 50-70%
Hybanthus aurantiacus - 100%, <1% to 1-5%
Abutilon fraseri - 100%, <1% to 1-5%
Ehretia saligna var. saligna - 100%, <1% to 1-5%
Triumfetta appendiculata (Burrup Form) - 100%, <1% to 1-5%
Mukia maderaspatana - 100%, <1% to 1-5%
Pterocaulon sphacelatum - 100%, <1% to 1-5%
Scaevola spinescens - 100%, <1% to 1-5%
Streptoglossa decurrens - 100%, <1% to <1%
Acacia orthocarpa - 100%, <1% to 5-10%
Acacia coriacea - 100%, <1% to 1-5%
Hibiscus sturtii var. campylochlamys - 100%, <1% to <1%
Ptilotus obovatus - 100%, <1% to 5-10%
Phyllanthus maderaspatensis var. angustifolius - 100%, <1% to 1-5%

200 Floristic Group Level, Unit: 169,

Average Number of Species / Site: 44
Sites from: BURPEN - 2
Sites in Habitats: rp - 2
Portion of Dendrogram: (Area and Site on left)
BURPEN B045 _____
BURPEN B046 _____|_____

Vegetation Description:
BURPEN B045 Mainly Acacia coriacea and Cullen sp. Scattered shrubs over Indigofera monophylla, and mixed low open shrubland over Themeda sp. Triodia epactia (Burrup Form) tussock/hummock grassland.
BURPEN B046 Ficus platypoda var. D, Ficus virens var. sublanceolata, Brachychiton acuminatus low open woodland over Flueggea virosa subsp. Melanthesoides, Acacia coriacea scattered tall shrubs over Ipomoea costat, Rhagodia eremaea open shrubland over Themeda sp. Burr

Soil:
BURPEN B045 Skeletal red-brown.
BURPEN B046

Common Species: (Name - % of Sites, Range of Cover)
Cymbopogon ambiguus - 100%, 1-5% to 1-5%

Triumfetta appendiculata (Burrup Form) - 100%, 1-5% to 1-5%
Pterocaulon sphacelatum - 100%, 1-5% to 5-10%
Triodia angusta (Burrup Form) - 100%, 1-5% to 5-10%
Trichodesma zeylanicum - 100%, 1-5% to 1-5%
Trachymene aff. oleracea (B61) - 100%, <1% to 1-5%
Triodia epactia (Burrup Form) - 100%, 1-5% to 25-33%
Themeda sp. Burrup (B84) - 100%, 10-25% to 25-33%
Rhynchosia sp. Burrup (82-1C) - 100%, 1-5% to 5-10%
Cheilanthes aff. tenuifolia (B18) - 100%, 1-5% to 1-5%
Acacia colei - 100%, <1% to 5-10%
Solanum horridum - 100%, <1% to <1%
Tephrosia aff supina (MET 12,357) - 100%, <1% to 1-5%
Acacia coriacea - 100%, 1-5% to 5-10%
Streptoglossa decurrens - 100%, <1% to 1-5%
Brachychiton acuminatus - 100%, 1-5% to 1-5%
Rhagodia eremaea - 100%, <1% to 1-5%
Euphorbia coghlanii - 100%, 1-5% to 1-5%
Phyllanthus ciccoides - 100%, 1-5% to 1-5%
Corchorus walcottii - 100%, <1% to 1-5%

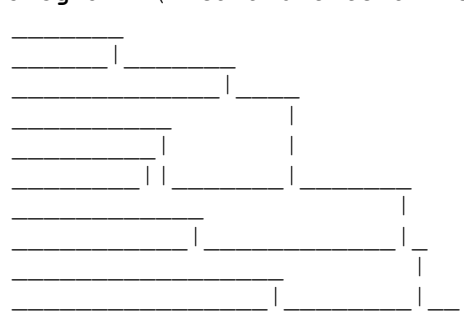
50 Group Level, Member: 45,

Average Number of Species / Site: 23
Sites from: HARDAM - 11 HAMIR - 3 KARHIL - 2
Sites in Habitats: rp - 14 rps - 1 slr - 1

Common Species: (Name - % of Sites, Range of Cover)
Rhagodia eremaea - 100%, <1% to 10-25%
Mukia maderaspatana - 94%, <1% to <1%
Acacia coriacea - 94%, <1% to 10-25%
Paspalidium tabulatum (Burrup Form) - 88%, <1% to 5-10%
Ptilotus obovatus - 88%, <1% to 10-25%
Scaevola spinescens - 81%, <1% to 10-25%
Tinospora smilacina - 81%, <1% to <1%
Cleome viscosa - 69%, <1% to <1%
Cymbopogon ambiguus - 69%, <1% to <1%
Aristida nitidula - 69%, <1% to 5-10%
Jasminum didymum subsp. lineare - 69%, <1% to <1%
Solanum horridum - 62%, <1% to <1%
Trichosanthes cucumerina - 62%, <1% to <1%
Cenchrus ciliaris - 62%, <1% to 1-5%
Commicarpus australis - 56%, <1% to <1%
Triumfetta maconochieana - 50%, <1% to 1-5%
Dichrostachys spicata - 50%, <1% to 10-25%
Eremophila longifolia - 50%, <1% to 10-25%
Ehretia saligna var. saligna - 50%, <1% to 10-25%
Clerodendrum tomentosum - 44%, <1% to 1-5%

200 Floristic Group Level, Unit: 170,

Average Number of Species / Site: 22
Sites from: HARDAM - 8 KARHIL - 2
Sites in Habitats: rp - 9 slr - 1
Portion of Dendrogram: (Area and Site on left)



Vegetation Description:

HARDAM HD177 Inadequate data recorded for a vegetation description to be compiled.
HARDAM HD178
HARDAM HD180 Inadequate data recorded for a vegetation description to be compiled.
HARDAM HD207 Inadequate detail recorded for a vegetation description to be compiled.
HARDAM HD208 Inadequate data recorded for a vegetation description to be compiled.
HARDAM HD209 Inadequate data recorded for a vegetation description to be compiled.
KARHIL KH211 Inadequate data recorded for a vegetation description to be compiled.
KARHIL KH212 Inadequate detail recorded for a vegetation description to be compiled.
HARDAM HD191 Terminalia canescens low woodland over Rhagodia, Cassia oligophylla shrubland over Triodia wiseana, Paspalidium tabulatum open grassland.
HARDAM HD206 Inadequate detail recorded for a vegetation description to be compiled.

Soil:

HARDAM HD177 (1) Brown silty clay associated with calcrete (2) Red brown sandy clay grading to clay downslope associated with outcrop.
HARDAM HD178 No sample
HARDAM HD180 Where present, a shallow loose mix of weathered rock and organic matter. No soil to speak of.
HARDAM HD207 Where present, thin brown/red silty loam.
HARDAM HD208 Where present, a thin brown sandy loam, lots of organic matter.
HARDAM HD209 Red-brown sandy loam, with some silt, to red silty loam on south side.
KARHIL KH211 Brown loam in pockets higher up slope, rich red clay loam in lower pockets and below rockpile.
KARHIL KH212 Rocky brown loam.
HARDAM HD191 Skeletal fine dark clay loam.
HARDAM HD206 Dark red-brown clay, calcrete soil silty brown clay, ~5% of soil.

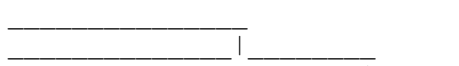
Common Species: (Name - % of Sites, Range of Cover)

Acacia coriacea - 100%, <1% to <1%
Rhagodia eremaea - 100%, <1% to <1%
Mukia maderaspatana - 90%, <1% to <1%
Ptilotus obovatus - 90%, <1% to <1%

Tinospora smilacina - 90%, <1% to <1%
Jasminum didymum subsp. lineare - 80%, <1% to <1%
Paspalidium tabulatum (Burrup Form) - 80%, <1% to <1%
Commicarpus australis - 70%, <1% to <1%
Trichosanthes cucumerina - 70%, <1% to <1%
Ehretia saligna var. saligna - 70%, <1% to <1%
Cymbopogon ambiguus - 70%, <1% to <1%
Cleome viscosa - 70%, <1% to <1%
Scaevola spinescens - 70%, <1% to <1%
Solanum horridum - 60%, <1% to <1%
Aristida nitidula - 60%, <1% to <1%
Cenchrus ciliaris - 60%, <1% to <1%

200 Floristic Group Level, Unit: 171,

Average Number of Species / Site: 26
Sites from: HAMIR - 3
Sites in Habitats: rp - 3
Portion of Dendrogram: (Area and Site on left)



Vegetation Description:

HAMIR HR201 Terminalia canescens, Clerodendrum tomentosum scattered low trees over Acacia coriacea, Rhagodia eremaea Ptilotus obovatus scattered low shrubs Paspalidium tabulatum, Aristida, Triodia epactia scattered tussock/hummock grasses.

HAMIR HR203 Brachychiton acuminatus, Clerodendrum tomentosum scattered low trees to low open woodland over Acacia coriacea, Terminalia supranitifolia open shrubland over Rhagodia eremaea, Scaevola aff. Spinescens low open shrubland over Aristida, Paspalidium tabulatu

HAMIR HR202 Terminalia supranitifolia, Ehretia saligna var. saligna, Acacia coriacea scattered low trees to low open woodland over Dichrostachys spicata scattered shrubs over Melhania, Scaevola aff. Spinescens scattered low shrubs over Paspalidium tabulatum, Cenchrus

Soil:

HAMIR HR201 Red-brown sandy.
HAMIR HR203
HAMIR HR202 Red-brown silty loam.

Common Species: (Name - % of Sites, Range of Cover)
Cenchrus ciliaris - 100%, <1% to 1-5%
Mukia maderaspatana - 100%, <1% to <1%
Paspalidium tabulatum (Burrup Form) - 100%, <1% to 5-10%
Brachychiton acuminatus - 100%, <1% to 1-5%
Scaevola spinescens - 100%, <1% to 10-25%
Aristida nitidula - 100%, <1% to 5-10%
Clerodendrum tomentosum - 100%, <1% to 1-5%
Terminalia supranitifolia - 100%, 1-5% to 10-25%
Ptilotus obovatus - 100%, <1% to 1-5%
Acacia coriacea - 100%, 1-5% to 10-25%
Eremophila longifolia - 100%, <1% to <1%
Trichosanthes cucumerina - 100%, <1% to <1%
Rhagodia eremaea - 100%, <1% to 10-25%
Amaranthus pallidiflorus - 67%, <1% to <1%
Cleome viscosa - 67%, <1% to <1%
Rhynchosia cf. minima - 67%, <1% to <1%
Tinospora smilacina - 67%, <1% to <1%

Abutilon fraseri - 67%, <1% to <1%
Triodia epactia - 67%, <1% to <1%
Jasminum didymum subsp. lineare - 67%, <1% to <1%

200 Floristic Group Level, Unit: 172,

Average Number of Species / Site: 21
Sites from: HARDAM - 2
Sites in Habitats: rp - 2
Portion of Dendrogram: (Area and Site on left)
HARDAM HD188 _____
HARDAM HD200 _____|__

Vegetation Description:
HARDAM HD188 Ipomoea costata, Dichrostachys spicata, Eremophila longifolia open shrubland over Scaevola spinescens, Rhagodia eremaea low open shrubland over Triodia angusta, Aristida nitidula very open hummock grassland.
HARDAM HD200 Grevillea pyramidalis, Flueggea virosa subsp. melanthesoides (Acacia coriacea) high open shrubland over Scaevola spinescens, Rhagodia, Ptilotus obovatus low open shrubland over Triodia angusta, Paspalidium tabulatum very open hummock/tussock grassland.

Soil:
HARDAM HD188
HARDAM HD200 Skeletal fine.

Common Species: (Name - % of Sites, Range of Cover)
Triumfetta maconochieana - 100%, <1% to <1%
Mukia maderaspatana - 100%, <1% to <1%
Triodia angusta - 100%,   to 5-10%
Cymbopogon ambiguus - 100%, <1% to <1%
Paspalidium tabulatum (Burrup Form) - 100%, <1% to 5-10%
Ipomoea costata - 100%, <1% to 10-25%
Rhagodia eremaea - 100%, 10-25% to 10-25%
Ptilotus obovatus - 100%, <1% to 10-25%
Scaevola spinescens - 100%, 5-10% to 5-10%
Solanum horridum - 100%, <1% to <1%

200 Floristic Group Level, Unit: 173,

Average Number of Species / Site: 27
Sites from: HARDAM - 1
Sites in Habitats: rps - 1
Portion of Dendrogram: (Area and Site on left)
HARDAM HD190 _____

Vegetation Description:
HARDAM HD190 Terminalia canescens low woodland over Melhania sp Burrup, Triumfetta maconochieana low scattered shrubs over Triodia wiseana scattred hummock grasses.

Soil:
HARDAM HD190 Yellow-brown sandy loam

Common Species: (Name - % of Sites, Range of Cover)
Cleome viscosa - 100%, <1% to <1%
Trachymene aff. oleracea (B61) - 100%, 1-5% to 1-5%
Indigofera monophylla (Burrup form) - 100%, <1% to <1%
Acacia coriacea - 100%, <1% to <1%
Paspalidium tabulatum (Burrup Form) - 100%, <1% to <1%

Triodia wiseana - 100%, 1-5% to 1-5%
Melhania sp. Burrup - 100%, 1-5% to 1-5%
Cymbopogon ambiguus - 100%, <1% to <1%
Rhagodia eremaea - 100%, <1% to <1%
Tinospora smilacina - 100%, <1% to <1%
Gossypium australe (Whim Creek form) - 100%, <1% to <1%
Phyllanthus maderaspatensis var. angustifolius - 100%, <1% to <1%
Amaranthus pallidiflorus - 100%, <1% to <1%
Solanum gabrielae - 100%, <1% to <1%
Aristida nitidula - 100%, <1% to <1%
Euphorbia sp. (site 1163) - 100%, <1% to <1%
Terminalia canescens - 100%, 10-25% to 10-25%
Enneapogon caerulescens var. occidentalis - 100%, <1% to <1%
Cassia glutinosa - 100%, 1-5% to 1-5%
Ipomoea costata - 100%, <1% to <1%

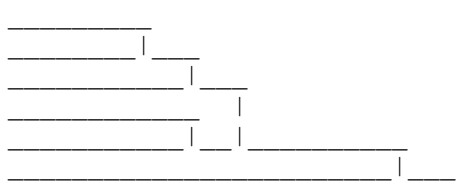
50 Group Level, Member: 46,

Average Number of Species / Site: 30
Sites from: BURPEN - 36 GIDISL - 3 ANGELISL - 3 DOLISL - 2 Coastal: 2
Sites in Habitats: scr - 9 dn - 4 ss - 4 rp - 3 sms - 3 scs - 3 sls - 2 sr - 2 smr - 2

Common Species: (Name - % of Sites, Range of Cover)
Triodia epactia (Burrup Form) - 98%, <1% to >70%
Triumfetta clementii - 82%, <1% to 5-10%
Trichodesma zeylanicum - 77%, <1% to 1-5%
Indigofera monophylla (Burrup form) - 75%, <1% to 33-50%
Rhynchosia cf. minima - 75%, <1% to 33-50%
Gomphrena cunninghamii - 75%, <1% to 1-5%
Evolvulus alsinoides var. villosicalyx - 73%, <1% to 1-5%
Mukia maderaspatana - 70%, <1% to 5-10%
Grevillea pyramidalis - 68%, <1% to 33-50%
Themeda sp. Burrup (B84) - 66%, <1% to >70%
Hybanthus aurantiacus - 66%, <1% to 5-10%
Corchorus walcottii - 66%, <1% to 33-50%
Triumfetta appendiculata (Burrup Form) - 64%, <1% to 33-50%
Bonamia media var. villosa - 64%, <1% to 1-5%
Pterocaulon sphacelatum - 59%, <1% to 1-5%
Goodenia microptera - 52%, <1% to 5-10%
Euphorbia coghlanii - 50%, <1% to 1-5%
Polycarpaea longiflora (red form) - 50%, <1% to 1-5%
Trachymene aff. oleracea (B61) - 48%, <1% to 1-5%
Solanum horridum - 48%, <1% to 5-10%

200 Floristic Group Level, Unit: 174,

Average Number of Species / Site: 23
Sites from: ANGELISL - 3 GIDISL - 3 Coastal: 1
Sites in Habitats: scs - 2 rp - 2 sms - 1 rpg - 1
Portion of Dendrogram: (Area and Site on left)



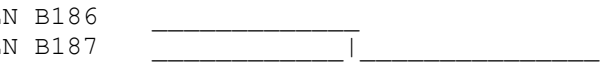
Vegetation Description:
ANGELISL A113 Scattered low shrubs of Tephrosia rosea var clementii over Triodia ?epactia (Burrup Form), Themeda mid-dense hummock grassland.
GIDISL G143 Themeda, Triodia hummock grassland, mid-dense.
ANGELISL A126 Ipomoea costata, Corchorus walcottii scattered low shrubs over Triodia epactia (Burrup Form), Triodia angusta (Burrup Form), Themeda sp. Burrup (B84) closed hummock/tussock grassland.
ANGELISL A120 Triodia epactia (Burrup Form) (hummock) and Themeda sp hummock/ tussock grassland with Mollugo molluginis, Tephrosia supina very open annual herbland.
GIDISL G136 Acacia orthocarpa low open shrubland over Triodia epactia (Burrup Form), Themeda sp. Burrup (B84) Sorghum plumosum hummock grassland, grassland with Rhynchosia minima very open lianes.
GIDISL G130 Ipomoea costata scattered shrubs over Themeda sp. Burrup (B84), Triodia epactia (Burrup Form), Sorghum plumosum hummock/tussock grassland with Goodenia microptera, Hybanthus aurantiacus, Aerva javanica very open herbland.

Soil:
ANGELISL A113 Light brown loam, some coarse sandgrains between pebbles and cobbles. About 60-70% of the surface is cobbles/pebbles, some small ares of outcrop.
GIDISL G143 Orange-brown loam, some grit, amongst cobbles. About 60% of surface cobbles, pebbles, some boulders.
ANGELISL A126 Sandy brown-red.
ANGELISL A120 Red, fine, clayey with ~50% gravel.
GIDISL G136 Red, very clayey with gravel and aggregates.
GIDISL G130 Pale, pinky-brown sandy soil - some very coarse grained - and small pebbles.

Common Species: (Name - % of Sites, Range of Cover)
Rhynchosia cf. minima - 100%, <1% to 25-33%
Mukia maderaspatana - 100%, <1% to <1%
Themeda sp. Burrup (B84) - 100%, 10-25% to 33-50%
Sorghum plumosum - 100%, <1% to 10-25%
Pterocaulon sphacelatum - 100%, <1% to 1-5%
Goodenia microptera - 100%, <1% to 5-10%
Evolvulus alsinoides var. villosicalyx - 83%, <1% to <1%
Triodia epactia (Burrup Form) - 83%, 10-25% to >70%
Corchorus walcottii - 83%, <1% to 1-5%
Bonamia media var. villosa - 83%, <1% to 1-5%
Hybanthus aurantiacus - 83%, <1% to 1-5%
Mollugo molluginis - 83%, <1% to 1-5%
Polycarpaea longiflora (red form) - 83%, <1% to 1-5%
Eriachne obtusa - 67%, <1% to <1%
Bulbostylis barbata - 67%, <1% to 1-5%
Gomphrena cunninghamii - 67%, <1% to 1-5%

200 Floristic Group Level, Unit: 175,

Average Number of Species / Site: 19
Sites from: BURPEN - 2
Sites in Habitats: scr - 1 sc - 1
Portion of Dendrogram: (Area and Site on left)



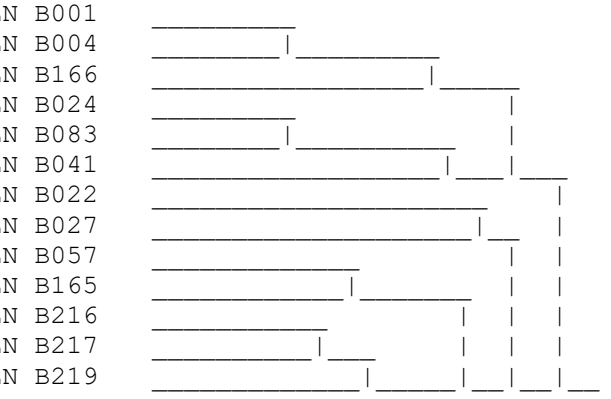
Vegetation Description:
BURPEN B186 Acacia tenuissima low shrubland over Themeda sp. Burrup (B84) grassland to closed grassland over Goodenia stobbsiana very open herbland.
BURPEN B187 Acacia tenuissima low open shrubland over Themeda sp. Burrup (B84), Triodia epactia (Burrup Form) tussock/hummock grassland.

Soil:
BURPEN B186 Very fine red loam.
BURPEN B187 Fine red-brown silty loam, skeletal.

Common Species: (Name - % of Sites, Range of Cover)
Goodenia stobbsiana - 100%, <1% to 5-10%
Trachymene aff. oleracea (B61) - 100%, <1% to <1%
Triumfetta appendiculata (Burrup Form) - 100%, <1% to <1%
Themeda sp. Burrup (B84) - 100%, 33-50% to 50-70%
Triodia epactia (Burrup Form) - 100%, <1% to 5-10%
Corymbia hamersleyana - 100%, <1% to <1%
Bonamia media var. villosa - 100%, <1% to <1%
Triumfetta clementii - 100%, <1% to <1%
Acacia tenuissima - 100%, <1% to 10-25%
Cajanus cinereus - 100%, <1% to <1%
Hibiscus sturtii var. campylochlamys - 100%, <1% to <1%
Gomphrena cunninghamii - 100%, <1% to <1%

200 Floristic Group Level, Unit: 176,

Average Number of Species / Site: 34
Sites from: BURPEN - 13
Sites in Habitats: scr - 5 ss - 1 st - 1 sl - 1 scs - 1 rpg - 1 rp - 1 dn - 1 dnr - 1
Portion of Dendrogram: (Area and Site on left)



Vegetation Description:
BURPEN B001 Triodia epactia (Burrup Form), Themeda sp. Burrup, Cymbopogon ambiguus closed hummock/tussock grassland with Tephrosia (B1-8) low open annual shrubland and Rhynchosia (B1-8), Rhynchosia cf. minima low annual lianes.
BURPEN B004 Ehretia saligna, Corymbia hamersleyana scattered tall shrubs/low

trees over Grevillea pyramidalis, Acacia coriacea scattered shrubs over Corchorus walcottii low shrubland to low open heath over Triodia epactia (Burrup Form), Themeda sp. Burrup grassland t

BURPEN B166 Open heath Grevillea pyrimidalis (1-2 m, 30-70%) over low (dwarf) shrubland (< 1 m, 30-70%) Triumfetta appendiculata and Corchorus over Triodia epactia (Burrup Form) hummock grassland (30-70%) 20% Eriachne obtusa.

Corymbia hamersleyana scattered low tr

BURPEN B024 Scattered Tall Shrubs of Acacia? pyrifolia (24-1) and Acacia bivenosa over Indigofera monophylla Low Shrubland over Triodia epactia (Burrup Form) Hummock Grassland.

BURPEN B083 Scattered low trees of Corymbia hamersleyana over Indigofera monophylla low shrubland over Triodia ?epactia (Burrup Form) (B83-5) mid dense hummock grass with low lianes of Rhynchosia (B83-3).

BURPEN B041 Indigofera monophylla (B41-1) low shrubland over Triodia epactia (Burrup Form) hummock grassland over scattered herbs.

BURPEN B022 Corymbia hamersleyana scattered low trees over Acacia colei, Acacia bivenosa open shrubland over Indigofera monophylla low scattered shrubs over Triodia epactia (Burrup Form), Themeda sp. Burrup (B84) hummock tussock grassland.

BURPEN B027 Indigofera monophylla Low Open Shrubland over Triodia epactia (Burrup Form) Hummock Grassland with Vigna - Rhynchosia lianes.

BURPEN B057 Low open Indigofera monophylla heath (30-50% <1 m) over dense closed Triodia epactia (Burrup Form) hummock grassland (70-100%). Scattered shrubs (<2%). Acacia elachantha, Grevillea pyramidalis scattered over Indigofera monophylla low open heathland over T

BURPEN B165 Cullen scattered tall shrubs over Acacia coriacea scattered shrubs over Indigofera monophylla, Acacia colei low shrubland over Triodia epactia (Burrup Form), Cymbopogon ambiguus hummock/tussock grassland.

BURPEN B216

BURPEN B217 Grevillea pryamidalis, Acacia colei scattered shrubs over Cymbopogon ambiguus, Triodia epactia (Burrup Form) tussock/hummock grassland with Vigna, Rhynchosia cf. minima very open lianes.

BURPEN B219 Ipomoea costata (Acacia elachantha) shrubland over Indigofera monophylla (Burrup Form), Corchorus low open heath over Triodia epactia (Burrup Form), Cymbopogon ambiguus hummock/tussock grassland.

Soil:

BURPEN B001 Skeletal red silty soil with small-medium rocks and boulders on slope (30-60cm)

BURPEN B004 Skeletal

BURPEN B166 Brown sandy colluvial soil - part of colluvial fan associated with drainage lines from higher slopes.

BURPEN B024 Brown (slightly orange) loam amongst pebbles and cobbles.

BURPEN B083 Orange-brown loamy brown sand, pebbly, among cobbles.

BURPEN B041 Skeletal red silt.

BURPEN B022 Red-brown, sparse between boulders and cobbles.

BURPEN B027 Clayey, red-brown.

BURPEN B057 Red-brown sandy clay.

BURPEN B165 Red-brown sandy loam.

BURPEN B216 Skeletal red-brown silty loam beneath rocky mantle.

BURPEN B217 Red-brown silty soil beneath consistent layer of rock.

BURPEN B219 Red brown silty loam.

Common Species: (Name - % of Sites, Range of Cover)

Triodia epactia (Burrup Form) - 100%, <1% to >70%

Indigofera monophylla (Burrup form) - 100%, <1% to 33-50%

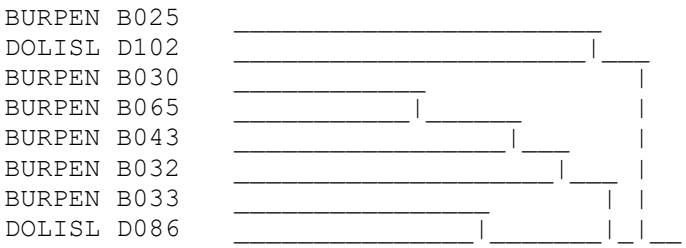
Grevillea pyramidalis - 92%, <1% to 33-50%

Gomphrena cunninghamii - 92%, <1% to 1-5%

Triumfetta clementii - 92%, <1% to 1-5%
Abutilon lepidum - 92%, <1% to 1-5%
Trichodesma zeylanicum - 92%, <1% to 1-5%
Rhynchosia cf. minima - 85%, <1% to 25-33%
Triumfetta appendiculata (Burrup Form) - 85%, <1% to 33-50%
Mukia maderaspatana - 85%, <1% to 1-5%
Cymbopogon ambiguus - 77%, <1% to 33-50%
Polycarpaea longiflora (red form) - 77%, <1% to 1-5%
Trachymene aff. oleracea (B61) - 77%, <1% to <1%
Evolvulus alsinoides var. villosicalyx - 77%, <1% to <1%
Hybanthus aurantiacus - 77%, <1% to 1-5%
Boerhavia gardneri - 77%, <1% to 1-5%
Crotalaria medicaginea (Burrup form; B65-11) - 69%, <1% to 5-10%
Bonamia media var. villosa - 62%, <1% to <1%
Euphorbia coghlanii - 62%, <1% to 1-5%
Corchorus walcottii - 54%, <1% to 33-50%

200 Floristic Group Level, Unit: 177,

Average Number of Species / Site: 29
Sites from: BURPEN - 6 DOLISL - 2 Coastal: 1
Sites in Habitats: ss - 2 scr - 2 str - 1 slr - 1 ps - 1 sms - 1
Portion of Dendrogram: (Area and Site on left)



Vegetation Description:

BURPEN B025 Mixed Shrubland (Acacia/Grevillea) (1-2 m, 10-30%) over Low Open Shrubland (<1 m, 1-20%) Indigofera monophylla over Hummock Grassland (30-70%). Acacia bivenosa, Grevillea pyramidalis open shrubland over Indigofera monophylla low open shrubland over Triodi

DOLISL D102 Shrubland (1-2 m; 10-30%) Acacia pyrifolia over dense Triodia epactia (Burrup Form) (70-100%) hummock grassland and open herbs (2-10%), grey Mollugo molluginis. Acacia pyrifolia high shrubland over Triodia epactia (Burrup Form) closed hummock grassland.

BURPEN B030 Acacia inaequilatera Scattered Shrubs over Scattered Shrubs of Acacia bivenosa, Acacia (B30-2) over Indigofera monophylla Low Open Shrubland over Themeda (B30-1), Triodia epactia (Burrup Form) mid-dense grassland with Low Lianes of Rhynchosia (B30-3)

BURPEN B065 Scattered talls shrubs of Acacia bivenosa over scattered shrubs of Acacia (B65-1) over Themeda, Triodia grassland (mid-dense).

BURPEN B043 Acacia colei shrubland over Indigofera monophylla (Burrup Form) low open shrubland over Themeda sp. Burrup (B84), Triodia epactia (Burrup Form) tussock/hummock grassland.

BURPEN B032 Acacia colei (? Broad) Scattered Shrubs over Goodenia stubbsiana, Acacia orthocarpa low open shrubland over Triodia epactia (Burrup Form)/Themeda Hummock/Tussock Grassland.

BURPEN B033 Grevillea pyramidalis, Acacia colei scattered shrubs over Triodia epactia (Burrup Form) hummock grassland.

DOLISL D086 Scattered shrubs of Grevillea pyramidalis over Indigofera monophylla low shrubland over Triodia ?epactia (Burrup Form) mid dense hummock grassland.

Soil:

BURPEN B025 Skeletal red-brown silty, low rockwall to E and deeper colluvial sandy soil and shale to rock drop at W side.
DOLISL D102 Red-brown, sandy.
BURPEN B030 Gravelly, pebbly red brown (fine) sandy loam amongst cobbles and some boulders.
BURPEN B065 Silty fine brown sand amongst pebbles and cobbles.
BURPEN B043 Red, skeletal.
BURPEN B032 Sparse, red-brown clayey.
BURPEN B033 Skeletal red-brown.
DOLISL D086 Pebbly gravelly brown loam amongst cobbles and small boulders. Surface mostly large pebbles to cobbles, some small boulders.

Common Species: (Name - % of Sites, Range of Cover)
Triodia epactia (Burrup Form) - 100%, <1% to >70%
Euphorbia coghlanii - 88%, <1% to <1%
Acacia colei - 88%, <1% to 10-25%
Triumfetta clementii - 88%, <1% to 1-5%
Goodenia microptera - 88%, <1% to 1-5%
Mollugo molluginis - 88%, <1% to <1%
Trichodesma zeylanicum - 75%, <1% to 1-5%
Pterocaulon sphacelatum - 75%, <1% to <1%
Corchorus walcottii - 75%, <1% to 1-5%
Grevillea pyramidalis - 75%, <1% to 10-25%
Gomphrena cunninghamii - 75%, <1% to <1%
Themeda sp. Burrup (B84) - 75%, <1% to 25-33%
Bonamia media var. villosa - 75%, <1% to <1%
Bulbostylis barbata - 75%, <1% to <1%
Cajanus cinereus - 62%, <1% to <1%
Solanum horridum - 62%, <1% to <1%
Triumfetta appendiculata (Burrup Form) - 62%, <1% to <1%
Indigofera monophylla (Burrup form) - 62%, <1% to 5-10%

200 Floristic Group Level, Unit: 178,

Average Number of Species / Site: 31
Sites from: BURPEN - 4
Sites in Habitats: sls - 2 dns - 1 smr - 1
Portion of Dendrogram: (Area and Site on left)

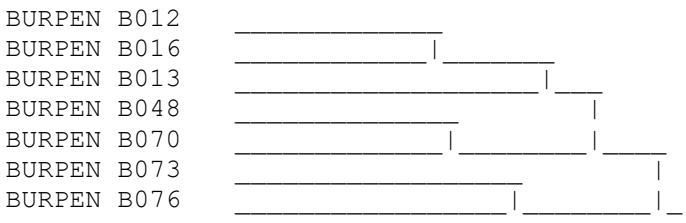
Vegetation Description:
BURPEN B047 Corymbia hamersleyana low open woodland over Acacia inequilatera, Acacia pyrifolia (grey-green), Acacia coriacea, Acacia bivenosa, Acacia c.. (broad). High open shrubland over Indigofera monophylla. Low shrubland over Themeda/Triodia epactia (Burrup Fo
BURPEN B231 Ipomoea costata, Acacia bivenosa scattered shrubs over Acacia elachantha scattered low shrubs over Themeda sp. Burrup (B84) Triodia epactia (Burrup Form) closed tussock/hummock grassland.
BURPEN B092 Corymbia hamersleyana scattered low trees over Stylidium spathulatum, Acacia coriacea shrubland over Corchorus walcottii low shrubland over Triodia epactia (Burrup Form), Themedra sp. Burrup (B84) hummock/tussock grassland.
BURPEN B194 Corymbia hamersleyana low mallee woodland over scattered tall shrubs of Acacia bivenosa and Acacia inaequilatera over scattered shrubs of Acacia (broad) and A. arida over scattered low shrubs of Indigofera monophylla and Corchorus over Themeda/Triodia epa

Soil:
BURPEN B047 Not seen.
BURPEN B231 Skeletal red-brown silty loam with small rocks, stones 10-20 cm diameter.
BURPEN B092 Skeletal, pink-grey and brown sandy soil
BURPEN B194 Orange brown gravelly loam amongst cobbles about 50% of surface pebbles or angular cobbles.

Common Species: (Name - % of Sites, Range of Cover)
Themeda sp. Burrup (B84) - 100%, 5-10% to >70%
Triumfetta clementii - 100%, <1% to 1-5%
Trichodesma zeylanicum - 100%, <1% to <1%
Indigofera monophylla (Burrup form) - 100%, <1% to 10-25%
Triodia epactia (Burrup Form) - 100%, 5-10% to 33-50%
Corchorus walcottii - 100%, <1% to 10-25%
Evolvulus alsinoides var. villosicalyx - 75%, <1% to <1%
Corymbia hamersleyana - 75%, <1% to 10-25%
Scaevola spinescens - 75%, <1% to <1%
Pterocaulon sphacelatum - 75%, <1% to <1%
Phyllanthus maderaspatensis var. angustifolius - 75%, <1% to <1%
Cajanus cinereus - 75%, <1% to 1-5%
Grevillea pyramidalis - 75%, <1% to 1-5%
Streptoglossa decurrens - 75%, <1% to <1%
Acacia coriacea - 75%, <1% to <1%
Acacia bivenosa - 75%, <1% to 1-5%
Cassia glutinosa - 75%, <1% to <1%
Acacia orthocarpa - 75%, <1% to 1-5%

200 Floristic Group Level, Unit: 179,

Average Number of Species / Site: 37
Sites from: BURPEN - 7
Sites in Habitats: sr - 1 str - 1 sms - 1 slr - 1 scr - 1 dn - 1 smr - 1
Portion of Dendrogram: (Area and Site on left)



Vegetation Description:
BURPEN B012 Grevilela pyramidalis scattered shrubs over Triumfetta appendiculata (Burrup Form) low open shrubland over Triodia epactia (Burrup Form) hummock grassland with Rhynchosia cf. minima lianes with Tephrosia aff supina (MET 12, 357) herbland.
BURPEN B016 Scattered shrubs of Grevillea pyramidalis, Ipomoea costata, over Triodia epactia (Burrup Form) hummock grassland with scattered shrubs over Tephrosia mauve herbland and Rhynchosia vineland.
BURPEN B013 Open shrubland (1-2 m, 2-10%) Dichrostachys spicata over Tephrosia (B13-1), Indigofera monophylla Low Open Heath (<1 m, 10-30%) Triumfetta appendiculata/Indigofera monophylla over Triodia epactia (Burrup Form), Triodia angusta (Burrup Form) hummock grassl
BURPEN B048 Ipomoea costata open shrubland over Tephrosia aff. supina (MET 12,357), Indigofera colutea, Triumfetta clemenetii low shrubland over Themeda sp. Burrup (B84), Triodia epactia (Burrup Form), Cenchrus ciliaris tussock/hummock grassland over Fimbristylis aff
BURPEN B070 Ipomoea costata (1-2 m, <2%) Scattered shrubs over Cajanus cinereus (<1 m, >10%) Low Open Shrubland over Themeda tussock

Grassland/Triodia epactia (Burrup Form) tussock/hummock Grassland/ Tephrosia (mauve) very open annual herbland with Rhynchosia cf. min
BURPEN B073 Tephrosia rosea, Indigofera monophylla Low Shrubland to Low Open Heath over Triodia epactia (Burrup Form)Hummock Grassland
BURPEN B076 Indigofera monophylla, Tephrosia rosea, Triumfetta (felty, green) Low Open Heath over Triodia epactia (Burrup Form), Triodia angusta (Burrup Form) Hummock Grassland to Closed Hummock Grassland.

Soil:
BURPEN B012 Sparse, skeletal; red-brown loamy clay, between rocks.
BURPEN B016 Very sparse between boulders.
BURPEN B013 Reddish to brown silty soil with small rocks and pebbles 15-25 cm diameter.
BURPEN B048 Red-brown clayey loam.
BURPEN B070 Pale red-brown loamy clay; sparse.
BURPEN B073 Red/brown clay loam, with gravel to cobble surface.
BURPEN B076 Good mulch layer, dark chocolate brown clayey loam. Bare patches few.

Common Species: (Name - % of Sites, Range of Cover)
Triodia epactia (Burrup Form) - 100%, 10-25% to >70%
Gomphrena cunninghamii - 100%, <1% to 1-5%
Indigofera monophylla (Burrup form) - 100%, <1% to 25-33%
Polycarpaea longiflora (red form) - 100%, <1% to 1-5%
Triumfetta clementii - 100%, <1% to 5-10%
Evolvulus alsinoides var. villosicalyx - 100%, <1% to 1-5%
Triumfetta appendiculata (Burrup Form) - 86%, 1-5% to 25-33%
Crotalaria medicaginea (Burrup form; B65-11) - 86%, 1-5% to 5-10%
Mukia maderaspatana - 86%, <1% to 5-10%
Ipomoea costata - 86%, <1% to 5-10%
Hybanthus aurantiacus - 86%, <1% to 5-10%
Rhynchosia cf. minima - 86%, <1% to 33-50%
Grevillea pyramidalis - 86%, <1% to 1-5%
Cleome viscosa - 71%, <1% to 1-5%
Trichodesma zeylanicum - 71%, <1% to 1-5%
Tephrosia aff supina (MET 12,357) - 71%, 5-10% to 33-50%
Streptoglossa decurrens - 71%, <1% to 1-5%
Abutilon lepidum - 71%, <1% to 1-5%
Themeda sp. Burrup (B84) - 71%, <1% to 50-70%
Indigofera linifolia - 71%, <1% to 5-10%

200 Floristic Group Level, Unit: 180,

Average Number of Species / Site: 27
Sites from: BURPEN - 4
Sites in Habitats: dn - 2 sr - 1 ss - 1
Portion of Dendrogram: (Area and Site on left)
BURPEN B068 _____
BURPEN B069 _____ |
BURPEN B096 _____|_____ |
BURPEN B157 _____|__|___

Vegetation Description:
BURPEN B068 Acacia pyrifolia scattered shrubs over Triodia epactia (Burrup Form), Themeda sp. Burrup (B84), Cenchrus ciliaris hummock/tussock grassland with Tephrosia, Stemodia grossa, Tephrosia (mauve) annual herbland and with Rhynchosia minima open lianes.
BURPEN B069 Acacia pyrifolia, Acacia coraicea, Acacia inaequilatera high open shrubland over Acacia orthocarpa, Cassia, Acacia bivenosa, Grevillea pyramidalis open shrubland over Sida rhombifolia, Corchorus walcottii, Solanum

low shrubland over Triodia epactia (Burru
BURPEN B096 Indigofera monophylla low shrubland over Triodia epactia (Burrup Form) hummock grassland and closed hummock grassland. Acacia coriacea high open shrubland over Indigofera monophylla, Triumfetta (felty green), Acacia orthocarpa, Hybanthus aurantiacus low s
BURPEN B157 Acacia coriacea (broad), Cullen high open shrubland over Indigofera monophylla, Triumfetta appendiculata low shrubland over Cymbpogon ambiguua tussock, Triodia epactia (Burrup Form), Triodia angusta (Burrup Form) hummock grassland with Rhynchosia cf. mini

Soil:
BURPEN B068 Black loamy
BURPEN B069 Dark (reddish) brown clayey loam
BURPEN B096 Red-brown cracking clay.
BURPEN B157 Skeletal red clay loam, approx. 5% visible.

Common Species: (Name - % of Sites, Range of Cover)
Pterocaulon sphacelatum - 100%, <1% to 1-5%
Triumfetta appendiculata (Burrup Form) - 100%, 1-5% to 10-25%
Triodia epactia (Burrup Form) - 100%, 25-33% to 50-70%
Trichodesma zeylanicum - 100%, <1% to 1-5%
Triumfetta clementii - 100%, <1% to 1-5%
Solanum horridum - 100%, 1-5% to 5-10%
Rhynchosia cf. minima - 100%, 1-5% to 10-25%
Phyllanthus maderaspatensis var. angustifolius - 100%, <1% to 1-5%
Malvastrum americanum - 75%, <1% to 1-5%
Mukia maderaspatana - 75%, <1% to 1-5%
Corchorus walcottii - 75%, 1-5% to 5-10%
Cymbopogon ambiguus - 75%, 1-5% to 25-33%
Indigofera monophylla (Burrup form) - 75%, 1-5% to 25-33%
Evolvulus alsinoides var. villosicalyx - 75%, 1-5% to 1-5%

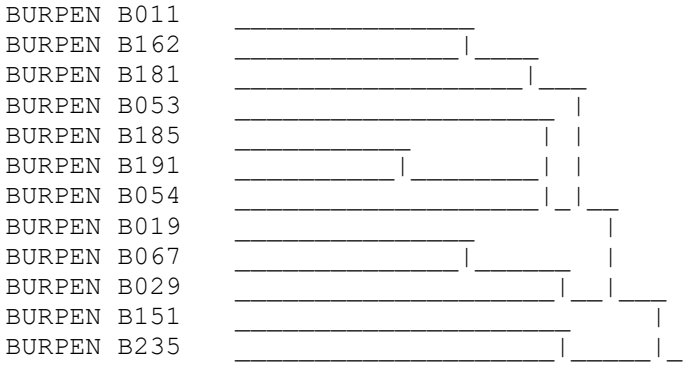
50 Group Level, Member: 47,

Average Number of Species / Site: 43
Sites from: BURPEN - 17 DOLISL - 1 Coastal: 5
Sites in Habitats: dns - 6 ps - 4 dn - 3 du - 2 sls - 2 d - 1

Common Species: (Name - % of Sites, Range of Cover)
Acacia bivenosa - 100%, <1% to 33-50%
Triodia epactia (Burrup Form) - 94%, <1% to >70%
Indigofera linifolia - 94%, <1% to 5-10%
Streptoglossa decurrens - 89%, <1% to <1%
Crotalaria medicaginea (Burrup form; B65-11) - 89%, <1% to <1%
Corchorus walcottii - 89%, <1% to 10-25%
Rhynchosia cf. minima - 83%, <1% to 10-25%
Triumfetta clementii - 83%, <1% to <1%
Swainsona formosa - 78%, <1% to 1-5%
Evolvulus alsinoides var. villosicalyx - 78%, <1% to 1-5%
Goodenia microptera - 78%, <1% to <1%
Pterocaulon sphacelatum - 72%, <1% to <1%
Trichodesma zeylanicum - 72%, <1% to <1%
Indigofera monophylla (Burrup form) - 72%, <1% to 10-25%
Acacia coriacea - 67%, <1% to 33-50%
Euphorbia tannensis subsp. eremophila (Burrup form) - 61%, <1% to <1%
Triodia angusta (Burrup Form) - 61%, <1% to 33-50%
Solanum horridum - 61%, <1% to <1%
Triumfetta appendiculata (Burrup Form) - 61%, <1% to <1%
Mukia maderaspatana - 61%, <1% to <1%

200 Floristic Group Level, Unit: 181,

Average Number of Species / Site: 52
Sites from: BURPEN - 12
Sites in Habitats: dns - 6 dn - 3 sls - 2 d - 1
Portion of Dendrogram: (Area and Site on left)



Vegetation Description:

BURPEN B011 Grevillea pyramidalis open heath over Corchorus walcottii low shrubland over Triodia epactia, Chysopogon fallax hummock/tussock grassland.

BURPEN B162 Corymbia hamersleyana low woodland over Acacia inaequilatera high shrubland over Acacia bivenosa, Cassia glutinosa, Grevillea pyrimidalis shrubland over Indigofera monophylla low open shrubland over Triodia epactia (Burrup Form), Triodia angusta (Burrup F

BURPEN B181 Eucalyptus victrix low woodland over scattered small patches of Pittosporum and Acacia over Rhagodia eremaea open shrubland (patchy under trees) over patches of Aerva javanica shrubs over scattered low shrubs of Corchorus and Indigofera monophylla over En

BURPEN B053 Open shrubland to scattered Acacia inaequilatera, Hakea, Grevillea pyramidalis over scattered low shrubs of Corchorus and Triodia? Pungens dense hummock grassland with low lianes of Rhynchosia over Fimbristylis low open sedgeland.

BURPEN B185 Acacia bivenosa high shrubland over scattered tall shrubs (in clumps) of Hakea ?chordophylla over scattered shrubs of Rhagodia eremaea, Scaevola spinescens and Adriana tomentosa over scattered low shrubs of Corchorus and Triodia epactia (Burrup Form) mid-

BURPEN B191 Scattered Corymbia (low mallees) over scattered tall shrubs of Grevillea pyramidalis over scattered to low open shrubland of Indigofera monophylla and Tephrosia rosea var. clementii over Triodia epactia (Burrup Form) (=B185) mid-dense hummock grassland wi

BURPEN B054 Corymbia hamersleyana/ Ehretia saligna low open woodland over shrubland, Hakea lorea ssp. lorea, Acacia bivenosa, Acacia coriacea over Triodia epactia (Burrup Form) hummock grassland.

BURPEN B019 Corymbia hamersleyana low open woodland to low woodland over Ehretia saligna, Dichrostachys spicata scattered tall shrubs over Triumfetta appendiculata (Burrup Form (??check)) over Triodia angusta (Burrup Form) hummock grassland.

BURPEN B067 Scattered low trees of Eucalyptus victrix over Tephrosia rosea var. clementii low open shrubland over Triodia ?epactia (Burrup Form), Triodia angusta medium dense hummock grassland.

BURPEN B029 Corymbia hamersleyana Low Open Woodland over Indigofera monophylla, Tephrosia rosea var Clementii Low Open Heath over Corchorus walcottii low shrubland and Triodia epactia (Burrup Form) Open Hummock Grassland.

BURPEN B151 Corymbia hamersleyana low woodland over Acacia bivenosa shrubland over Rhynchosia, Scaevola spinescens low open shrubland over Triodia angusta (Burrup Form), Triodia epactia (Burrup Form) tussock grassland.

BURPEN B235 Corymbia hamersleyana, Brachychiton acuminatus, Ehretia saligna

var. saligna low open forest over Acacia coriacea, Dichrostachys spicata, Acacia givenosa, Acacia elachantha open heath over Triodia angusta (Burrup Form), Triodia epactia (Burrup Form) hummo

Soil:
BURPEN B011 Alluvial brown-grey in narrow drainlines and low areas, skeletal red on higher surfaces.
BURPEN B162 Paly grey-brown sandy loam with stones and calcrete material. Looks imported - doesn't match surrounding red rock profile.
BURPEN B181 Light brown loam with calcereous nodules. Some boulders (possibly rock near surface in one part of plot).
BURPEN B053 Gravelly, pebbley fine sand with some silty/clayey material between cobbles. Surface ____ absent.
BURPEN B185 Gravelly/cobbly slightly orangish light brown loamy find sand.
BURPEN B191 Brown sandy fine loam, cobbly and pebbly.
BURPEN B054 Red sandy clay, large pockets of soil beneath stony areas, especially at lower end of slope.
BURPEN B019
BURPEN B067 Pebbly to cobbly with fine brown sand between the pebbles. Some larger rocks.
BURPEN B029 Brown loamy fine sand, pebbly, amongst cobbles. Damp in places with algal crusts.
BURPEN B151 Alluvial red-brown loam, deep with pebble/stony mantle.
BURPEN B235 Red-brown alluvial soil, appears very deep, very scattered stones.

Common Species: (Name - % of Sites, Range of Cover)
Corchorus walcottii - 100%, <1% to 10-25%
Streptoglossa decurrens - 100%, <1% to <1%
Acacia bivenosa - 100%, <1% to 25-33%
Rhynchosia cf. minima - 100%, <1% to 10-25%
Crotalaria medicaginea (Burrup form; B65-11) - 100%, <1% to <1%
Triodia epactia (Burrup Form) - 100%, <1% to >70%
Pterocaulon sphacelatum - 92%, <1% to <1%
Indigofera linifolia - 92%, <1% to 5-10%
Triumfetta clementii - 92%, <1% to <1%
Indigofera monophylla (Burrup form) - 92%, <1% to 10-25%
Swainsona formosa - 83%, <1% to <1%
Mukia maderaspatana - 83%, <1% to <1%
Evolvulus alsinoides var. villosicalyx - 83%, <1% to <1%
Trichodesma zeylanicum - 75%, <1% to <1%
Hibiscus sturtii var. campylochlamys - 75%, <1% to <1%
Corymbia hamersleyana - 75%, <1% to 33-50%
Dichrostachys spicata - 75%, <1% to 33-50%
Scaevola spinescens - 75%, <1% to 10-25%
Goodenia microptera - 75%, <1% to <1%
Acacia coriacea - 75%, <1% to 33-50%

200 Floristic Group Level, Unit: 182,

Average Number of Species / Site: 25
Sites from: BURPEN - 3 Coastal: 2
Sites in Habitats: ps - 3
Portion of Dendrogram: (Area and Site on left)
BURPEN B234 _____
BURPEN B239a _____|_____
BURPEN B239b _____|_____

Vegetation Description:
BURPEN B234 Grevillea pyramidalis (Acacia bivenosa, Acacia elachantha) open heath over Tephrosia rosea low open heath over Triodia epactia (Burrup Form),

Triodia angusta (Burrup Form) hummock grassland.
BURPEN B239a Acacia bivenosa shrubland over Triodia epactia (Burrup Form) hummock grassland and mixed herbland.
BURPEN B239b Acacia bivenosa shrubland over Triodia angusta (Burrup Form) hummock grassland and mixed herbland.

Soil:
BURPEN B234 Pinky-red silty colluvial loam with stones 3-5 cm diameter.
BURPEN B239a Pale medium red brown fine rained loam with scattered stony mantle.
BURPEN B239b Pale medium red brown fine rained loam with scattered stony mantle.

Common Species: (Name - % of Sites, Range of Cover)
Crotalaria medicaginea (Burrup form; B65-11) - 100%, <1% to <1%
Pterocaulon sphaeranthoides - 100%, <1% to <1%
Crotalaria novae-hollandiae subsp. novae-hollandiae - 100%, <1% to <1%
Corchorus walcottii - 100%, <1% to <1%
Indigofera linifolia - 100%, <1% to <1%
Goodenia microptera - 100%, <1% to <1%
Streptoglossa decurrens - 100%, <1% to <1%
Acacia bivenosa - 100%, 1-5% to 33-50%
Trichodesma zeylanicum - 100%, <1% to <1%
Acacia elachantha - 67%, 1-5% to 1-5%
Euphorbia tannensis subsp. eremophila (Burrup form) - 67%, <1% to <1%
Tephrosia aff. densa (B17) - 67%, <1% to <1%
Triodia epactia (Burrup Form) - 67%, 33-50% to 50-70%
Hybanthus aurantiacus - 67%, <1% to <1%
Triodia angusta (Burrup Form) - 67%, 10-25% to 33-50%
Triumfetta clementii - 67%, <1% to <1%
Adriana tomentosa - 67%, <1% to <1%
Evolvulus alsinoides var. villosicalyx - 67%, <1% to <1%
Indigofera trita - 67%, <1% to <1%
Indigofera colutea - 67%, <1% to <1%

200 Floristic Group Level, Unit: 183,

Average Number of Species / Site: 32
Sites from: DOLISL - 1 Coastal: 1
Sites in Habitats: ps - 1
Portion of Dendrogram: (Area and Site on left)
DOLISL D101 _____

Vegetation Description:
DOLISL D101 Acacia pyrifolia (glaucous) (101D-21) (Acacia bivenosa) shrubland over Triodia epactia (Burrup Form) closed hummock grassland.

Soil:
DOLISL D101 Brown sandy colluvial soil, some with blackish algal mat (not beach soil but close to beach, up a bit higher than beach level). With stones 5-25 cm diameter.

Common Species: (Name - % of Sites, Range of Cover)
Portulaca oleracea - 100%, <1% to <1%
Triodia epactia (Burrup Form) - 100%, <1% to <1%
Streptoglossa decurrens - 100%, <1% to <1%
Acacia coriacea - 100%, <1% to <1%
Euphorbia aff. australia (B191) - 100%, <1% to <1%
Crotalaria medicaginea (Burrup form; B65-11) - 100%, <1% to <1%
Acacia pyrifolia (slender, white) - 100%, <1% to <1%

Polycarpaea longiflora (red form) - 100%, <1% to <1%
Eriachne mucronata - 100%, <1% to <1%
Eriachne tenuiculmis - 100%, <1% to <1%
Triumfetta appendiculata (Burrup Form) - 100%, <1% to <1%
Mollugo molluginis - 100%, <1% to <1%
Euphorbia sp. (B170-4) - 100%, <1% to <1%
Acacia bivenosa - 100%, <1% to <1%
Bulbostylis barbata - 100%, <1% to <1%
Swainsona formosa - 100%, <1% to <1%
Amaranthus sp. (D111) - 100%, <1% to <1%
Indigofera colutea - 100%, <1% to <1%
Triodia angusta (Burrup Form) - 100%, <1% to <1%
Mukia maderaspatana - 100%, <1% to <1%

200 Floristic Group Level, Unit: 184,

Average Number of Species / Site: 21
Sites from: BURPEN - 2 Coastal: 2
Sites in Habitats: du - 2
Portion of Dendrogram: (Area and Site on left)
BURPEN B063 _____
BURPEN B170 _____|_____

Vegetation Description:
BURPEN B063 Aerva javanica low shrubland over Triodia hummock grassland. Scattered Acacia bivenosa, Acacia coriacea tall shrubs.
BURPEN B170 Acacia bivenosa, Acacia coriacea scattered shrubs over Cenchrus ciliaris Triodia epactia (Burrup Form) grassland open hummock /tussock grassland Whiteochloa airoides with Cenchrus ciliaris (weed), Aerva javanica, Indigofera linnaei herbland.

Soil:
BURPEN B063 Pale brown calcareous sand with shell fragments. Pinkish surface in places.
BURPEN B170 Fine grained sand with coarser shell grits and quartz particles.

Common Species: (Name - % of Sites, Range of Cover)
Sida aff. fibulifera (oblong; MET 15 220) - 100%, <1% to <1%
Swainsona formosa - 100%, <1% to 1-5%
Euphorbia tannensis subsp. eremophila (Burrup form) - 100%, <1% to <1%
Evolvulus alsinoides var. villosicalyx - 100%, <1% to 1-5%
Indigofera linifolia - 100%, <1% to <1%
Triodia epactia (Burrup Form) - 100%, 10-25% to 33-50%
Acacia bivenosa - 100%, <1% to 1-5%
Goodenia microptera - 100%, <1% to <1%
Aerva javanica - 100%, 25-33% to 33-50%
Acacia coriacea - 100%, <1% to <1%
Solanum horridum - 100%, <1% to <1%

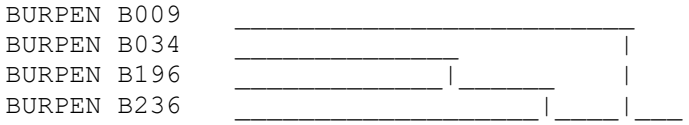
50 Group Level, Member: 48,

Average Number of Species / Site: 31
Sites from: BURPEN - 5 KARHIL - 2
Sites in Habitats: sls - 5 sl - 2

Common Species: (Name - % of Sites, Range of Cover)
Triodia wiseana (Burrup Form) - 100%, <1% to >70%
Rhynchosia cf. minima - 100%, <1% to 5-10%
Bonamia media var. villosa - 86%, <1% to <1%
Triumfetta clementii - 86%, <1% to <1%
Evolvulus alsinoides var. villosicalyx - 86%, <1% to <1%
Acacia bivenosa - 86%, <1% to 1-5%
Streptoglossa decurrens - 71%, <1% to <1%
Swainsona formosa - 71%, <1% to 1-5%
Crotalaria medicaginea (Burrup form; B65-11) - 71%, <1% to <1%
Indigofera monophylla (Burrup form) - 71%, <1% to 5-10%
Boerhavia gardneri - 71%, <1% to 5-10%
Trichodesma zeylanicum - 57%, <1% to <1%
Corchorus walcottii - 57%, <1% to <1%
Goodenia microptera - 57%, <1% to <1%
Abutilon lepidum - 57%, <1% to <1%
Cassia glutinosa - 57%, <1% to 10-25%
Themeda sp. Burrup (B84) - 57%, <1% to 5-10%
Gomphrena cunninghamii - 57%, <1% to <1%
Phyllanthus maderaspatensis var. angustifolius - 43%, <1% to <1%
Acacia pyrifolia (slender, white) - 43%, <1% to 10-25%

200 Floristic Group Level, Unit: 185,

Average Number of Species / Site: 36
Sites from: BURPEN - 4
Sites in Habitats: sls - 2 sl - 2
Portion of Dendrogram: (Area and Site on left)



Vegetation Description:
BURPEN B009 Acacia orthocarpa, Indigofera linnaei (B9-12) Crotalaria medicaginea (9-15) low open shrubland (mainly <10 cm), over Triodia wiseana (Burrup Form), Cenchrus ciliaris, hummock grassland/grassland.
BURPEN B034 Tall Scattered Shrubs of Acacia bivenosa over Scattered Low Shrubs of Indigofera monophylla over Triodia wiseana (Burrup Form) mid-dense Hummock Grassland with Rhynchosia low vines.
BURPEN B196 Eucalyptus xerothermica low mallee woodland over scattered tall shrubs of Acacia inaequilatera, Acacia (broad), Acacia bivenosa over Dicrostachys spicata, Rhagodia, Acacia coriacea scattered shrubs over Triodia wiseana (Burrup Form), (T. angusta (Burrup F
BURPEN B236 Corymbia hamersleyana scattered low trees over Acacia bivenosa, Acacia elachantha, Acacia orthocarpa scattered shrubs over Triodia wiseana (Burrup Form) closed hummock grassland.

Soil:
BURPEN B009 Red-brown loamy clay and rocks.
BURPEN B034 Brown [dark when wet], clayey fine sand, pebbly with pebble scatter and cobbles [small] on surface.
BURPEN B196 Sandy loam, mid-light brown.

BURPEN B236 Greyish brown sandy loam beneath mixed pale orange-pink softer sand-stony rock often mixed with quartz fragments

Common Species: (Name - % of Sites, Range of Cover)
Acacia bivenosa - 100%, <1% to 1-5%
Triumfetta clementii - 100%, <1% to <1%
Triodia wiseana (Burrup Form) - 100%, 50-70% to >70%
Evolvulus alsinoides var. villosicalyx - 100%, <1% to <1%
Rhynchosia cf. minima - 100%, <1% to 5-10%
Swainsona formosa - 100%, <1% to <1%
Corchorus walcottii - 100%, <1% to <1%
Crotalaria medicaginea (Burrup form; B65-11) - 100%, <1% to <1%
Boerhavia gardneri - 100%, <1% to 5-10%
Streptoglossa decurrens - 100%, <1% to <1%
Polygala sp. (M23-2) - 75%, <1% to <1%
Bonamia media var. villosa - 75%, <1% to <1%
Trichodesma zeylanicum - 75%, <1% to <1%
Indigofera colutea - 75%, <1% to <1%
Themeda sp. Burrup (B84) - 75%, <1% to 1-5%
Goodenia microptera - 75%, <1% to <1%
Indigofera monophylla (Burrup form) - 75%, <1% to 1-5%

200 Floristic Group Level, Unit: 186,

Average Number of Species / Site: 16
Sites from: BURPEN - 1
Sites in Habitats: sls - 1
Portion of Dendrogram: (Area and Site on left)
BURPEN B071 _____|

Vegetation Description:
BURPEN B071 Triodia wiseana hummock grassland with Themeda hummock/tussock grassland with Tephrosia (mauve) very open annual low herbland with Rhynchosia cf. minima very open lianes.

Soil:
BURPEN B071 Reddish gravelly loam.

Common Species: (Name - % of Sites, Range of Cover)
Rhynchosia cf. minima - 100%, 5-10% to 5-10%
Hibiscus aff. coatesii (MET 15 012) - 100%, <1% to <1%
Acacia pyrifolia (green) - 100%, <1% to <1%
Tephrosia aff supina (MET 12,357) - 100%, 1-5% to 1-5%
Themeda sp. Burrup (B84) - 100%, 5-10% to 5-10%
Ptilotus exaltatus var. exaltatus - 100%, <1% to <1%
Triumfetta appendiculata (Burrup Form) - 100%, <1% to <1%
Bonamia media var. villosa - 100%, <1% to <1%
Triodia wiseana (Burrup Form) - 100%, 50-70% to 50-70%
Cymbopogon ambiguus - 100%, 1-5% to 1-5%
Heliotropium tenuifolium - 100%, <1% to <1%
Ptilotus gaudichaudii var. gaudichaudii - 100%, <1% to <1%
Swainsona formosa - 100%, 1-5% to 1-5%
Aristida contorta - 100%, <1% to <1%
Gomphrena cunninghamii - 100%, <1% to <1%
Crotalaria medicaginea (Burrup form; B65-11) - 100%, <1% to <1%

200 Floristic Group Level, Unit: 187,

Average Number of Species / Site: 33
Sites from: KARHIL - 1
Sites in Habitats: sls - 1
Portion of Dendrogram: (Area and Site on left)
KARHIL KA204 _____

Vegetation Description:
KARHIL KA204 Acacia pyrifolia, Stylidium spathulatum, Acacia synchronicia shrubland, Cassia glutinosa over Indigofera monophylla, Acacia trachycarpa low shrubland over Triodia epactia (Burrup Form), Triodia wiseana (Burrup Form) hummock grassland.

Soil:
KARHIL KA204 Brown silty loam. Gravelly, mixed gravel included quartz banded rock and calcrete.

Common Species: (Name - % of Sites, Range of Cover)
Tephrosia supina - 100%, <1% to <1%
Cenchrus ciliaris - 100%, <1% to <1%
Rhynchosia cf. minima - 100%, <1% to <1%
Triodia wiseana (Burrup Form) - 100%, 25-33% to 25-33%
Cassia oligophylla - 100%, <1% to <1%
Corchorus aff. sidoides (KA204-10) - 100%, <1% to <1%
Acacia trachycarpa - 100%, 5-10% to 5-10%
Trachymene aff. oleracea (B61) - 100%, <1% to <1%
Indigofera monophylla (Burrup form) - 100%, 5-10% to 5-10%
Triodia epactia (Burrup Form) - 100%, 33-50% to 33-50%
Cassia pruinosa - 100%, <1% to <1%
Cassia glutinosa - 100%, 10-25% to 10-25%
Acacia bivenosa - 100%, <1% to <1%
Stylobasium spathulatum - 100%, 5-10% to 5-10%
Cassytha capillaris - 100%, <1% to <1%
Solanum diversiflorum - 100%, <1% to <1%
Cymbopogon obtectus - 100%, <1% to <1%
Phyllanthus maderaspatensis var. angustifolius - 100%, <1% to <1%
Diplopeltis eriocarpa - 100%, <1% to <1%
Solanum phlomoides - 100%, <1% to <1%

200 Floristic Group Level, Unit: 188,

Average Number of Species / Site: 30
Sites from: KARHIL - 1
Sites in Habitats: sls - 1
Portion of Dendrogram: (Area and Site on left)
KARHIL KA205 _____

Vegetation Description:
KARHIL KA205 Acacia pyrifolia (pruinose) scattered shrubs over Indigofera monophylla scattered low shrubs over Triodia epactia (Burrup Form) hummock grassland.

Soil:
KARHIL KA205 Fine red-brown silty loam.

Common Species: (Name - % of Sites, Range of Cover)
Grevillea pyramidalis - 100%, <1% to <1%
Triodia epactia (Burrup Form) - 100%, <1% to <1%

Rhynchosia cf. minima - 100%, <1% to <1%
Triodia wiseana (Burrup Form) - 100%, <1% to <1%
Hibiscus aff. platychlamys (MET 15 067) - 100%, <1% to <1%
Euphorbia sp. (site 1163) - 100%, <1% to <1%
Boerhavia gardneri - 100%, <1% to <1%
Indigofera monophylla (Burrup form) - 100%, <1% to <1%
Mollugo molluginis - 100%, <1% to <1%
Cenchrus ciliaris - 100%, <1% to <1%
Gomphrena cunninghamii - 100%, <1% to <1%
Bulbostylis barbata - 100%, <1% to <1%
Cleome viscosa - 100%, <1% to <1%
Triumfetta clementii - 100%, <1% to <1%
Ptilotus obovatus - 100%, <1% to <1%
Corchorus sidoides - 100%, <1% to <1%
Heliotropium cunninghamii - 100%, <1% to <1%
Cassia pruinosa - 100%, <1% to <1%
Gossypium australe (Burrup Peninsula form) - 100%, <1% to <1%
Tephrosia supina - 100%, <1% to <1%

50 Group Level, Member: 49,

Average Number of Species / Site: 21
Sites from: BURPEN - 6 CAPPRE - 3 DOLISL - 2 ANGELISL - 1 Coastal: 3
Sites in Habitats: ps - 2 sl - 1 sts - 1 sr - 1 dn - 1 slr - 1 p - 1 ds - 1 dns - 1

Common Species: (Name - % of Sites, Range of Cover)
Triodia angusta (Burrup Form) - 100%, 10-25% to >70%
Indigofera trita - 67%, <1% to 10-25%
Pterocaulon sphacelatum - 67%, <1% to 1-5%
Streptoglossa decurrens - 58%, <1% to 5-10%
Triodia epactia (Burrup Form) - 50%, <1% to >70%
Corchorus walcottii - 50%, <1% to 1-5%
Cassytha capillaris - 50%, <1% to 5-10%
Mukia maderaspatana - 50%, <1% to <1%
Boerhavia gardneri - 42%, <1% to <1%
Cenchrus ciliaris - 42%, <1% to 10-25%
Rhynchosia cf. minima - 42%, <1% to <1%
Indigofera monophylla (Burrup form) - 42%, <1% to 33-50%
Triumfetta clementii - 42%, <1% to 1-5%

200 Floristic Group Level, Unit: 189,

Average Number of Species / Site: 20
Sites from: ANGELISL - 1
Sites in Habitats: dnr - 1
Portion of Dendrogram: (Area and Site on left)
ANGELISL A128 _____

Vegetation Description:
ANGELISL A128 Tall Triodia angusta (Burrup Form) hummock grassland over Stemodia grossa, Tephrosia rosea open herbland.

Soil:
ANGELISL A128 Sandy, grey-brown.

Common Species: (Name - % of Sites, Range of Cover)
Themeda sp. Burrup (B84) - 100%, <1% to <1%
Cynanchum floribundum - 100%, <1% to <1%
Canavalia rosea - 100%, <1% to <1%
Bulbostylis barbata - 100%, <1% to <1%
Sorghum plumosum - 100%, <1% to <1%
Panicum decompositum - 100%, <1% to <1%
Tephrosia rosea var. clementii - 100%, <1% to <1%
Gomphrena cunninghamii - 100%, <1% to <1%
Mukia maderaspatana - 100%, <1% to <1%
Rhynchosia cf. minima - 100%, <1% to <1%
Acacia orthocarpa - 100%, <1% to <1%
Phyllanthus maderaspatensis var. angustifolius - 100%, <1% to <1%
Stemodia grossa - 100%, 10-25% to 10-25%
Goodenia microptera - 100%, <1% to <1%
Pluchea rubelliflora - 100%, <1% to <1%
Pterocaulon sphacelatum - 100%, <1% to <1%
Indigofera linifolia - 100%, <1% to <1%
Indigofera trita - 100%, <1% to <1%
Corchorus walcottii - 100%, <1% to <1%
Triodia angusta (Burrup Form) - 100%, 33-50% to 33-50%

200 Floristic Group Level, Unit: 190,

Average Number of Species / Site: 6
Sites from: BURPEN - 1
Sites in Habitats: ds - 1
Portion of Dendrogram: (Area and Site on left)
BURPEN B175 _____

Vegetation Description:
BURPEN B175 Pittosporum phylliraeoides scattered tall shrubs to high open shrubland over Triodia angusta (Burrup Form) closed hummock grassland.

Soil:
BURPEN B175 See B171-174.

Common Species: (Name - % of Sites, Range of Cover)
Alectryon oleifolius - 100%, 1-5% to 1-5%
Swainsona formosa - 100%, 1-5% to 1-5%
Triodia angusta (Burrup Form) - 100%, >70% to >70%
Trichodesma zeylanicum - 100%, <1% to <1%
Pittosporum phylliraeoides var. phylliraeoides - 100%, 1-5% to 1-5%
Stylobasium spathulatum - 100%, <1% to <1%

200 Floristic Group Level, Unit: 191,

Average Number of Species / Site: 14
Sites from: CAPPRE - 2 Coastal: 1
Sites in Habitats: p - 1 ps - 1
Portion of Dendrogram: (Area and Site on left)
CAPPRE M065 _____
CAPPRE M082 _____|_

Vegetation Description:
CAPPRE M065 Triodia angusta / *Cenchrus ciliaris dense grassland.
CAPPRE M082 Triodia angusta hummock grassland with patches of Sclerolaena open herbland.

Soil:
CAPPRE M065 Light brown silty loam with a small amount of fine sand; dark crust on surface in places.
CAPPRE M082 Red clay loam with scatters of pebbles and stones on surface.

Common Species: (Name - % of Sites, Range of Cover)
Triodia angusta (Burrup Form) - 100%, 50-70% to 50-70%
Indigofera trita - 100%, <1% to 1-5%
Cenchrus ciliaris - 100%, <1% to 10-25%

200 Floristic Group Level, Unit: 192,

Average Number of Species / Site: 32
Sites from: BURPEN - 2
Sites in Habitats: dn - 1 sls - 1
Portion of Dendrogram: (Area and Site on left)
BURPEN B006 _____
BURPEN B184 _____|_____

Vegetation Description:
BURPEN B006 Acacia bivenosa scattered tall shrubs over Dichrostachys spicata scattered shrubs over Indigofera trita, Indigofera linnaei low shrubland over Triodia angusta (Burrup Form), Triodia epactia (Burrup Form), B6-15, Chrysopogon fallax closed hummock tussock g
BURPEN B184 Indigofera trita low shrubland over Triodia angusta (Burrup Form) (Triodia epactis (Burrup Form)) hummock grassland.

Soil:
BURPEN B006 Red-brown loamy clay.
BURPEN B184 Light brown gravelly/pebbly loam, has about 20% pebble surface and a black (Cyanophycene) crust on much of remainder of surface.

Common Species: (Name - % of Sites, Range of Cover)
Tephrosia aff. clementii (5)B184 - 100%, <1% to <1%
Triodia angusta (Burrup Form) - 100%, 50-70% to 50-70%
Streptoglossa decurrens - 100%, <1% to 5-10%
Indigofera linifolia - 100%, <1% to 5-10%
Indigofera linnaei - 100%, <1% to <1%
Pterocaulon sphacelatum - 100%, <1% to 1-5%
Corchorus walcottii - 100%, <1% to 1-5%
Evolvulus alsinoides var. villosicalyx - 100%, <1% to <1%
Indigofera trita - 100%, 10-25% to 10-25%
Cassytha capillaris - 100%, <1% to 5-10%
Trianthema turgidifolia - 100%, <1% to 5-10%
Aerva javanica - 100%, <1% to <1%
Chrysopogon fallax - 100%, <1% to 5-10%

Cenchrus ciliaris - 100%, <1% to 5-10%
Rhynchosia cf. minima - 100%, <1% to <1%
Triodia epactia (Burrup Form) - 100%, 1-5% to 25-33%

200 Floristic Group Level, Unit: 193,

Average Number of Species / Site: 35
Sites from: CAPPRE - 1
Sites in Habitats: ps - 1
Portion of Dendrogram: (Area and Site on left)
CAPPRE M035 _____

Vegetation Description:
CAPPRE M035 Triodia angusta mid-dense hummock grassland with patches of Themeda triandra and Cassytha capillaris.

Soil:
CAPPRE M035 Red-brown gravelly / pebbly loam amongst cobbles, some low outcrops and boulders.

Common Species: (Name - % of Sites, Range of Cover)
Hibiscus aff. platychlamys (M35.11) - 100%, <1% to <1%
Solanum horridum - 100%, <1% to <1%
Triodia wiseana - 100%, <1% to <1%
Corchorus aff. walcotti (K.J. Atkins 570) - 100%, <1% to <1%
Polycarpaea longiflora (White form, M13-7) - 100%, <1% to <1%
Indigofera monophylla (Cape Preston form) - 100%, <1% to <1%
Abutilon aff. lepidum (4) - 100%, <1% to <1%
Rhynchosia cf. minima - 100%, <1% to <1%
Triodia angusta (Burrup Form) - 100%, 33-50% to 33-50%
Chrysopogon fallax - 100%, <1% to <1%
Cymbopogon ambiguus - 100%, <1% to <1%
Tephrosia aff. supina (M19-3) - 100%, <1% to <1%
Themeda triandra - 100%, <1% to <1%
Enchylaena tomentosa - 100%, <1% to <1%
Achyranthes aspera - 100%, <1% to <1%
Tephrosia clementii - 100%, <1% to <1%
Gomphrena cunninghamii - 100%, <1% to <1%
Eriachne mucronata - 100%, <1% to <1%
Trianthema turgidifolia - 100%, <1% to <1%
Tephrosia aff clementii (4) (M35-14) - 100%, <1% to <1%

200 Floristic Group Level, Unit: 194,

Average Number of Species / Site: 25
Sites from: BURPEN - 2 DOLISL - 2 Coastal: 2
Sites in Habitats: sl - 1 slr - 1 dns - 1 sr - 1
Portion of Dendrogram: (Area and Site on left)
BURPEN B051 _____
BURPEN B218 _____ |
DOLISL D107 _____ | |
DOLISL D124 _____|___|__|_____

Vegetation Description:
BURPEN B051 Indigofera monophylla low open shrubland with Triodia angusta (Burrup Form), Triodia wiseana (Burrup Form), Themeda mid-dense grassland and Cassytha low vines.
BURPEN B218 Grevillea pyramidalis, Ipomoea costata open shrubland over Indigofera monophylla, Tephrosia var. clementii low open shrubland over Triodia angusta (Burrup Form) closed grassland with open lianes.

DOLISL D107 Indigofera monophylla low open heath over Triodia angusta (Burrup Form). Triodia epactia (Burrup Form) closed hummock grassland.
DOLISL D124 Ficus opposita, Cajun, Ipomoea costata open shrubland over Triodia angusta (Burrup Form) closed hummock grassland.

Soil:
BURPEN B051 Gravelly, pebbley, clayey fine sand amongst rocks.
BURPEN B218 Grey brown alluvial soil with cobbles, 5-10 cm diameter.
DOLISL D107 Red-brown sandy clay colluvial soil, moderate cover.
DOLISL D124 Mostly conglomerate rock and eroded conglomerate rock.

Common Species: (Name - % of Sites, Range of Cover)
Triodia angusta (Burrup Form) - 100%, 25-33% to >70%
Boerhavia gardneri - 100%, <1% to <1%
Triodia epactia (Burrup Form) - 100%, <1% to >70%
Indigofera monophylla (Burrup form) - 100%, <1% to 33-50%
Streptoglossa decurrens - 100%, <1% to <1%
Mukia maderaspatana - 100%, <1% to <1%
Pterocaulon sphacelatum - 100%, <1% to <1%
Cajanus cinereus - 75%, <1% to <1%
Triumfetta clementii - 75%, <1% to <1%
Bonamia media var. villosa - 75%, <1% to <1%
Corchorus walcottii - 75%, <1% to 1-5%
Ipomoea costata - 75%, <1% to 5-10%
Euphorbia sp. (site 1163) - 75%, <1% to <1%

200 Floristic Group Level, Unit: 195,

Average Number of Species / Site: 9
Sites from: BURPEN - 1
Sites in Habitats: sts - 1
Portion of Dendrogram: (Area and Site on left)
BURPEN B172 _____

Vegetation Description:
BURPEN B172 Ipomoea costata, Indigofera monophylla scattered low shrubs over Triodia wiseana (Burrup Form), Triodia angusta (Burrup Form) hummock grassland.

Soil:
BURPEN B172 Brown sticky clay seemingly associated with calcrete, red clay loam, where present approx. 5% cover with gravel.

Common Species: (Name - % of Sites, Range of Cover)
Indigofera monophylla (Burrup form) - 100%, 1-5% to 1-5%
Gomphrena cunninghamii - 100%, <1% to <1%
Triodia wiseana (Burrup Form) - 100%, 25-33% to 25-33%
Aerva javanica - 100%, 1-5% to 1-5%
Triodia angusta (Burrup Form) - 100%, 10-25% to 10-25%
Ipomoea costata - 100%, <1% to <1%
Solanum horridum - 100%, <1% to <1%
Streptoglossa decurrens - 100%, 1-5% to 1-5%
Scaevola spinescens - 100%, <1% to <1%

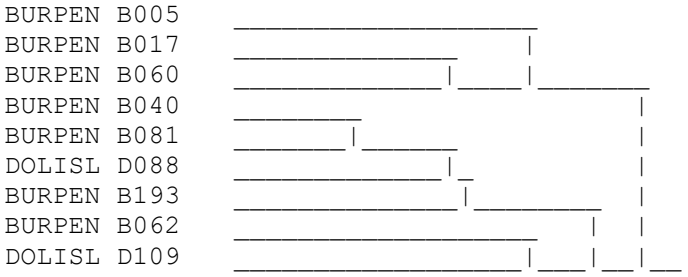
50 Group Level, Member: 50,

Average Number of Species / Site: 32
Sites from: BURPEN - 20 DOLISL - 4 Coastal: 1
Sites in Habitats: dnr - 8 dn - 7 dns - 7 ds - 2

Common Species: (Name - % of Sites, Range of Cover)
Stemodia grossa - 96%, <1% to 10-25%
Cyperus vaginatus - 92%, <1% to 33-50%
Phyllanthus maderaspatensis var. angustifolius - 83%, <1% to <1%
Ammannia baccifera - 83%, <1% to 1-5%
Acacia coriacea - 79%, <1% to 33-50%
Eucalyptus victrix - 79%, <1% to 33-50%
Terminalia canescens - 75%, <1% to 33-50%
Eriachne tenuiculmis - 75%, <1% to 25-33%
Sesbania cannabina - 75%, to 50-70%
Dicliptera armata - 75%, to 50-70%
Triodia angusta (Burrup Form) - 75%, <1% to 50-70%
Rhynchosia sp. Burrup (82-1C) - 71%, <1% to 5-10%
Triumfetta appendiculata (Burrup Form) - 67%, <1% to <1%
Cymbopogon ambiguus - 67%, <1% to 5-10%
Triodia epactia (Burrup Form) - 67%, to 25-33%
Cyperus bifax - 62%, <1% to 33-50%
Brachychiton acuminatus - 58%, <1% to 1-5%
Flueggea virosa subsp. melanthesoides - 58%, <1% to 10-25%
Rhynchosia cf. minima - 54%, to <1%
Corchorus walcottii - 54%, <1% to <1%

200 Floristic Group Level, Unit: 196,

Average Number of Species / Site: 39
Sites from: BURPEN - 7 DOLISL - 2
Sites in Habitats: dn - 5 dns - 3 ds - 1
Portion of Dendrogram: (Area and Site on left)



Vegetation Description:
BURPEN B005 Eucalyptus victrix low Woodland over Stylobasium spathulatum, Dichrostachys spicatum open heath over Corchorus walcottii low shrubland over Triodia angusta (Burrup Form), Triodia epactia (Burrup Form), Themeda sp. Burrup (B84), Cenchrus ciliaris (weed) hu
BURPEN B017 Eucalyptus victrix low open woodland over scattered Dichrostachys spicata, Acacia coriacea shrubs over Triodia angusta (Burrup Form), Themeda (B17), Cyperus vaginatus grassland/sedgeland with low lianes of Rhynchosia.
BURPEN B060 Eucalyptus victrix low open woodland/low woodland over scattered tall shrubs of Acacia coriacea over Dichrostachys spicata, Scaevola spinescens, Ipomoea costata, Rhagodia eremaea, open shrubland over scattered low shrubs/low open shrubland of Corchorus, I
BURPEN B040 Eucalyptus victrix low woodland over Sesbania cannabina tall herbalnd over Triodia angusta (Burrup Form), Triodia epactia (Burrup Form), Cyperus vaginatus, Cyperus bifax hummock grassland/sedgeland with Stemodia

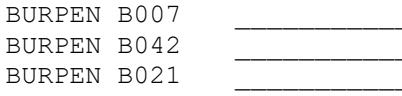
grossa, Dicliptera armata open annual herbl
BURPEN B081 Eucalyptus victrix low open woodland over tall open shrubland of Terminalia canescens over scattered low shrubs of Tephrosia rosea var clementii over Triodia angusta (Burrup Form), Cuyperus vaginatus open grassland/sedgeland with tall annual herbland of S
DOLISL D088 Eucalyptus victrix low woodland/low open woodland (patchy) over Triodia angusta (Burrup Form) dense hummock grassland.
BURPEN B193 Eucalyptus victrix low open forest over scattered tall shrubs of Acacia coriacea, Acacia (broad) and Acacia bivenosa over scattered shrubs of Adriana tomentosa, Stylobasium spathulatum and Flueggea virosa over Indigofera monophylla scattered low shrubs ov
BURPEN B062 Eucalyptus victrix low open woodland over scattered shrubs of Acacia coriacea, Flueggea virosa and Rhagodia eremaea over Triodia angusta (Burrup Form) dense hummock grassland with a narrow strip of Cyperus vaginatus and Cyperus sp. Sedgeland and liane of
DOLISL D109 Eucalyptus victrix low woodland over scattered low trees of Brachychiton over Acacia coriacea and Fluggia virosa scattered tall shrubs over Rhagodia eremaea and Scaevola scattered shrubs over Dicliptera armata dense annual herbland and open (very) hummock

Soil:
BURPEN B005 Light brown sandy alluvial soil with small pebbles and rocks from 1-20 cm diameter. Rocks are soarse grained, pale brownish cream to pale pink and grey.
BURPEN B017 Brown claypan.
BURPEN B060 Dark brown silty fine sand between cobbles. Paler when dry. Bed (1-3 m).
BURPEN B040 Colluvial red-grey soil, skeletal beneath stones.
BURPEN B081 Fine to coarse grained pebbly sand between cobbles and boulders.
DOLISL D088 Brown loamy fine sand, cobbly pebbly in places.
BURPEN B193 Pebbly dark brown clayey fine sand amongst cobbles and round boulders.
BURPEN B062 Brown silty sand (medium grained). Has ca. 1-2 cm litter layer.
DOLISL D109 Dark brown loam amongst pebbles and cobbles (on slope), bed.

Common Species: (Name - % of Sites, Range of Cover)
Trichodesma zeylanicum - 100%, <1% to <1%
Phyllanthus maderaspatensis var. angustifolius - 100%, <1% to <1%
Stemodia grossa - 100%, <1% to 5-10%
Acacia coriacea - 100%, <1% to 1-5%
Eucalyptus victrix - 100%, <1% to 25-33%
Dicliptera armata - 89%, to 50-70%
Rhynchosia sp. Burrup (82-1C) - 89%, <1% to 5-10%
Cyperus vaginatus - 89%, <1% to 1-5%
Triodia angusta (Burrup Form) - 89%, <1% to 50-70%
Triumfetta appendiculata (Burrup Form) - 89%, <1% to <1%
Ammannia baccifera - 78%, <1% to <1%
Acacia bivenosa - 78%, <1% to <1%
Corchorus walcottii - 78%, <1% to <1%
Sesbania cannabina - 78%, <1% to 33-50%
Triumfetta clementii - 78%, <1% to <1%
Mukia maderaspatana - 67%, <1% to <1%
Indigofera trita - 67%, <1% to <1%
Cymbopogon ambiguus - 67%, <1% to 1-5%
Indigofera monophylla (Burrup form) - 67%, <1% to <1%
Terminalia canescens - 67%, <1% to 1-5%

200 Floristic Group Level, Unit: 197,

Average Number of Species / Site: 30
Sites from: BURPEN - 3
Sites in Habitats: dnr - 3
Portion of Dendrogram: (Area and Site on left)



Vegetation Description:

BURPEN B007 Scattered low Eucalyptus leucophloia over scattered tall shrubs of Acacia coriacea and Sesbania tall annual herbland over scattered shrubs of Acacia bivenosa and Flueggia virosa over Triodia angusta (Burrup Form) open hummock grassland and Cyperus vaginat

BURPEN B042 Law(?) Open forest (30-50% < 10m) Eucalyptus victrix, Brachchiton acuminatus,Terminalia canescens, over shrubland [10-30 2 m] Sesbania cannabina [in pools] over herbs [30-70], Rhynchosia minima and Dicliptera armata plus 2-10% Cyperus vaginatus aff vagina

BURPEN B021 Terminalia canescens, Brachychiton acuminatus, Flueggea virosa subsp. Menthesoides low woodland over Dichrostachys spicata, Cenchrus ciliaris, Eriachne tenuiculmis, Triodia epactia (Burrup Form), Cymbopogon bombycinus, Themeda sp. Burrup (B84) grassland/h

Soil:

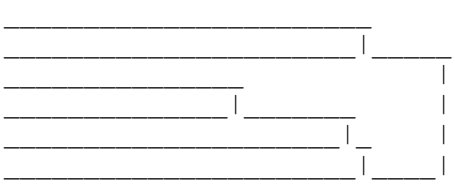
BURPEN B007 Silty coarse sand, brown, amongst cobbles and boulders.
BURPEN B042 Skeletal.
BURPEN B021 Skeletal brown grey, large rocks to 80-90 cm and outcropping rock.

Common Species: (Name - % of Sites, Range of Cover)

Cymbopogon ambiguus - 100%, <1% to 5-10%
Stemodia grossa - 100%, <1% to <1%
Rhynchosia sp. Burrup (82-1C) - 100%, <1% to <1%
Eriachne tenuiculmis - 100%, <1% to 25-33%
Terminalia canescens - 100%, <1% to 5-10%
Dicliptera armata - 100%, <1% to 33-50%
Phyllanthus maderaspatensis var. angustifolius - 100%, <1% to <1%
Brachychiton acuminatus - 100%, <1% to 1-5%
Flueggea virosa subsp. melanthesoides - 100%, <1% to 1-5%
Jasminum didymum subsp. lineare - 67%, <1% to <1%
Alectryon oleifolius - 67%, <1% to <1%
Commelina ensifolia - 67%, <1% to <1%
Cyperus vaginatus - 67%, <1% to <1%
Cenchrus ciliaris - 67%, <1% to 33-50%
Mukia maderaspatana - 67%, <1% to <1%
Eucalyptus victrix - 67%, <1% to <1%
Ehretia saligna var. saligna - 67%, <1% to <1%
Paspalidium tabulatum (Burrup Form) - 67%, <1% to <1%
Triodia angusta (Burrup Form) - 67%, <1% to <1%
Ficus opposita var. indecora - 67%, <1% to <1%

200 Floristic Group Level, Unit: 198,

Average Number of Species / Site: 30
Sites from: BURPEN - 6
Sites in Habitats: dn - 2 dnr - 2 dns - 2
Portion of Dendrogram: (Area and Site on left)



Vegetation Description:

BURPEN B008 Terminalia canescens (Eucalyptus victrix) low woodland over Triodia epactia (Burrup Form). Eriachne tenuiculmis, Cyperus vaginatus, Cyperus bifax hummock grass sedgeland with Dicliptera armata, Stemodia grossa annual open herbland to herbland.

BURPEN B167 Low woodland (< 10 m, 10-30%) Eucalytpus victrix over open heath Acacia ampliceps (1-2 m, 30-50%) over 10-30% sedge Cyperus vaginatus and 2-10% Eriachne tenuiculmis and Triodia angusta (Burrup Form). Eucalyptus victrix low woodland over Acacia ampliceps o

BURPEN B015 Terminalia canescens, Eucalyptus victrix low woodland over Eriachne tenuiculmis (B15-2), Triodia epactia (Burrup Form) open hummock grassland with Sesbania cannabina herbland.

BURPEN B230 Eucalyptus victrix, Terminalia canescens low woodland over Flueggea virosa subsp. Melanthesoides, Acacia coriacea scattered shrubs and Sesbania cannabina tall annual herbland over Cyperus vaginatus, Cyperus bifax, Triodia angusta (Burrup Form), Triodia ep

BURPEN B020 Terminalia canescens low open forest over Sesbania cannabins tall herbland over Triodia epactia (Burrup Form), Triodia angusta (Burrup Form) (Eriachne tenuiculmis (B20-9)) hummock/tussock grassland.

BURPEN B152 Eucalyptus victrix low open forest over Acacia bivenosa shrubland over Cyperus bifax, Cyperus vaginatus, Triodia angusta (Burrup Form), Triodia epactia (Burrup Form) sedgeland/hummock grassland with Stemodia open annual herbland.

Soil:

BURPEN B008 Brown-grey medium-coarse alluvial with stones to boulders 5 - 20 cm diameter.

BURPEN B167 Grey and brown-grey alluvial loam

BURPEN B015 Brownish-grey alluvial but scarcee beneath large rocks.

BURPEN B230 Deepish dark red-grey alluvial soil.

BURPEN B020 Skeletal to moderate brown-grey alluvial soil with rocks and boulders 20-40 cm dia.

BURPEN B152 Deep grey-dark brown alluvial with cobbles and pebbles.

Common Species: (Name - % of Sites, Range of Cover)

Eriachne tenuiculmis - 100%, <1% to 5-10%
Cyperus vaginatus - 100%, <1% to 25-33%
Stemodia grossa - 100%, <1% to 10-25%
Cenchrus ciliaris - 100%, <1% to <1%
Ammannia baccifera - 100%, <1% to <1%
Cyperus bifax - 83%, <1% to 25-33%

Dicliptera armata - 83%, <1% to 5-10%
Phyllanthus maderaspatensis var. angustifolius - 83%, <1% to <1%
Eucalyptus victrix - 83%, <1% to 10-25%
Sesbania cannabina - 83%, to 50-70%
Indigofera linifolia - 83%, <1% to <1%
Rhynchosia cf. minima - 83%, <1% to <1%
Terminalia canescens - 83%, <1% to <1%
Triodia epactia (Burrup Form) - 83%, <1% to 25-33%
Rhynchosia sp. Burrup (82-1C) - 67%, <1% to <1%
Cyperus squarrosus - 67%, <1% to <1%
Corchorus walcottii - 67%, <1% to <1%
Triodia angusta (Burrup Form) - 67%, <1% to 25-33%

200 Floristic Group Level, Unit: 199,

Average Number of Species / Site: 32
Sites from: BURPEN - 1
Sites in Habitats: ds - 1
Portion of Dendrogram: (Area and Site on left)
BURPEN B237 _____

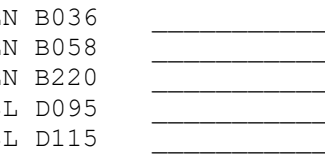
Vegetation Description:
BURPEN B237 Eucalyptus victrix low open forest over Acacia ampliceps, Pittosporum phylliraeoides var. phylliraeoides, Stylobasium spathulatum, Acacia coriacea Flueggea virosa subsp. Melanthesoides open heath over Triodia angusta (Burrup Form), Triodia epactia (Burrup

Soil:
BURPEN B237 Alluvial grey-brown.

Common Species: (Name - % of Sites, Range of Cover)
Eriachne tenuiculmis - 100%, <1% to <1%
Cymbopogon ambiguus - 100%, <1% to <1%
Rhynchosia cf. minima - 100%, <1% to <1%
Enchylaena tomentosa - 100%, <1% to <1%
Triodia angusta (Burrup Form) - 100%, 50-70% to 50-70%
Cassia oligophylla - 100%, <1% to <1%
Euphorbia tannensis subsp. eremophila (Burrup form) - 100%, <1% to <1%
Cassytha capillaris - 100%, <1% to <1%
Stylobasium spathulatum - 100%, 25-33% to 25-33%
Acacia ampliceps - 100%, 50-70% to 50-70%
Cyperus vaginatus - 100%, 10-25% to 10-25%
Abutilon aff. dioicum (HD72-14) - 100%, <1% to <1%
Cassia glutinosa - 100%, <1% to <1%
Clerodendrum tomentosum - 100%, <1% to <1%
Rhagodia preissii subsp. obovata - 100%, <1% to <1%
Acacia coriacea - 100%, 33-50% to 33-50%
Scaevola spinescens - 100%, <1% to <1%
Gymnanthera cunninghamii - 100%, <1% to <1%
Euphorbia coghlanii - 100%, <1% to <1%
Adriana tomentosa - 100%, <1% to <1%

200 Floristic Group Level, Unit: 200,

Average Number of Species / Site: 25
Sites from: BURPEN - 3 DOLISL - 2 Coastal: 1
Sites in Habitats: dnr - 3 dns - 2
Portion of Dendrogram: (Area and Site on left)



Vegetation Description:

BURPEN B036 Eucalyptus victrix low woodland over Cyperus vaginatus, Cyperus bifax, open sedgeland and Stemodia grossa herbland to closed sedge herbland annual Rhynchosia (36-13) annual lianes.

BURPEN B058 Terminalia canescens low open forest over Cyperus bifax, Cyperus vaginalis sedgeland with Triodia angusta (Burrup Form), Triodia epactia (Burrup Form) hummock grassland with Stemodia grossa open herbland and very open lianes.

BURPEN B220 Terminalia canescens low open forest over Abutilon fraseri low shrubland over Cyperus vaginatus, Cyperus bifax, Triodia epactia (Burrup Form) sedge/hummock grassland with Sesbania cannabina tall very open herbland and Rhynchosia sp. Burrup (82-1C) open li

DOLISL D095 Eucalyptus victrix, Terminalia canescens low woodland over Scaevola spinescens scattered shrubs over Cyperus vaginatus, Triodia epactia sedgeland/hummock grassland with Dichrostachys spicata, Sesbania cannabina, annual herbs.

DOLISL D115 Terminalia canescens (Brachychiton acuminata) low open forest over Sesbania cannabina tall herbland over Eriachne (115-1), Cyperus vaginatus (115-2) open grassland/herbland to grassland herbland.

Soil:

BURPEN B036 Very little soil, dark alluvial brown beneath stones/mostly rocky. Litter covered (dead rhymin, cyp-eri) cyp, stemodia.

BURPEN B058 Alluvial dark grey-brown.

BURPEN B220 Alluvial grey-brown medium fine loam.

DOLISL D095

DOLISL D115 Skeletal browm sandy loam, clay loam in spots. Good mulch cover.

Common Species: (Name - % of Sites, Range of Cover)

Cyperus bifax - 100%, <1% to 33-50%
Cyperus vaginatus - 100%, <1% to 33-50%
Brachychiton acuminatus - 100%, <1% to <1%
Ammannia baccifera - 100%, <1% to 1-5%
Triodia epactia (Burrup Form) - 80%, <1% to 10-25%
Acacia coriacea - 80%, <1% to <1%
Terminalia canescens - 80%, 10-25% to 33-50%
Stemodia grossa - 80%, <1% to <1%
Eriachne tenuiculmis - 80%, <1% to 10-25%
Triodia angusta (Burrup Form) - 60%, <1% to <1%
Cymbopogon ambiguus - 60%, <1% to <1%
Triumfetta appendiculata (Burrup Form) - 60%, <1% to <1%
Flueggea virosa subsp. melanthesoides - 60%, <1% to <1%
Dichrostachys spicata - 60%, <1% to <1%
Sesbania cannabina - 60%, <1% to 5-10%

Appendix 2 Dendrogram showing the classification of the sites using the cover data.

PROJ	site	Habitat	gp50	gp200	data
					0 0.4004 0.5929 0.7853 0.9778 1.1702 1.3627 1.5551 1.7476 1.9400
WANGEL	0001	sls	1	1	
WANGEL	0069	sls	1	1	
WANGEL	0077	sls	1	1	
WANGEL	0040	scr	1	1	
WANGEL	0044	sls	1	1	
WANGEL	0053	scs	1	1	
WANGEL	0127	sls	1	1	
WANGEL	1157	sls	1	1	
WANGEL	0587	scs	1	1	
WANGEL	0051	sls	1	1	
WANGEL	0091	sls	1	1	
WANGEL	0593	sms	1	1	
WANGEL	0070	sls	1	2	
WANGEL	0085	sl	1	2	
WANGEL	1105	sls	1	2	
WANGEL	0326	sm	1	3	
WANGEL	0342	sms	1	3	
WANGEL	0340	smr	1	3	
WANGEL	0350A	sms	1	3	
WANGEL	0352	scs	1	3	
WANGEL	0354	scs	1	3	
WANGEL	1096	scs	1	3	
WANGEL	1142	ps	1	3	
WANGEL	0065	dns	1	4	
WANGEL	1086	scs	1	4	
WANGEL	1108	smr	1	4	
WANGEL	1098	scr	1	4	
WANGEL	1083	sls	1	4	
WANGEL	1111	sms	1	4	
WANGEL	1095	scs	1	4	
WANGEL	0358	scs	1	5	
WANGEL	0452	scs	1	5	
WANGEL	1086A	sls	1	5	
WANGEL	0460	sls	1	5	
WANGEL	1121	sls	1	5	
WANGEL	0272	ss	1	6	
WANGEL	0440	scs	1	6	
WANGEL	0439	sls	1	6	
WANGEL	0590	sls	1	6	
WANGEL	1138	ps	1	6	
WANGEL	0432	dns	1	6	
WANGEL	0437	dns	1	6	
WANGEL	0013	ps	1	7	
WANGEL	1159	dns	1	7	
WANGEL	0128	ps	1	8	
WANGEL	0131	dns	1	8	
WANGEL	1102	scs	1	8	
WANGEL	1140	ps	1	8	
WANGEL	0066	scs	1	9	
WANGEL	1180	scs	1	9	
WANGEL	1182	dns	1	9	
WANGEL	1104	scs	1	9	
WANGEL	1110	scr	1	10	
WANGEL	1118	smr	1	10	
WANGEL	1178	scs	1	10	
WANGEL	1116	scr	1	10	
WANGEL	1130	smr	1	10	
WANGEL	1150	scs	1	10	
WANGEL	0331	scs	1	11	
WANGEL	1172	smr	1	11	
WANGEL	1124	scr	1	11	
WANGEL	1132	scr	1	11	
WANGEL	1164	smr	1	11	
WANGEL	1174	sls	1	11	
WANGEL	0327	dnr	1	12	
WANGEL	0329	smr	1	12	
WANGEL	1112	smr	1	12	
WANGEL	0339	scr	1	12	
WANGEL	1100	sms	1	12	
WANGEL	1162	scr	1	12	
WANGEL	0002	dn	2	13	
WANGEL	0003	dn	2	13	
WANGEL	0602	sms	2	13	
WANGEL	0047	dn	2	13	
WANGEL	0045	dn	2	13	
WANGEL	0007	sls	2	14	
WANGEL	0008	sl	2	14	
WANGEL	0004	sl	2	15	
WANGEL	0005	sls	2	15	
WANGEL	0025	sls	2	15	
WANGEL	0033	sls	2	16	
WANGEL	0244	sls	2	17	
WANGEL	0355	sls	2	17	
WANGEL	0356	s	2	17	
WANGEL	0597	sl	2	17	
WANGEL	0598	sls	2	17	
WANGEL	0035	dnr	2	18	
WANGEL	0318	sms	2	18	
WANGEL	0055	sls	2	18	
WANGEL	0600	scs	2	18	
WANGEL	0333	dns	2	18	
WANGEL	0057	sls	2	18	
WANGEL	0050	sl	2	19	
WANGEL	0079	sls	2	19	
WANGEL	0074	scs	2	20	
WANGEL	0090	dn	2	20	
WANGEL	0076	dn	2	20	
WANGEL	0084	sls	2	20	
WANGEL	0093	sls	2	20	
WANGEL	0094	scr	2	20	
WANGEL	0573	sl	2	20	
WANGEL	0089	sls	2	20	
WANGEL	0056	scr	2	21	
WANGEL	0060	smr	2	21	
WANGEL	1131	slr	2	21	

Appendix 2: Page 2

PROJ	site	Habitat	gp50	gp200	data
					0 0.4004 0.5929 0.7853 0.9778 1.1702 1.3627 1.5551 1.7476 1.9400
WANGEL	0335	smr	2	22	
WANGEL	1148	sl	2	22	
WANGEL	0058	sms	2	23	
WANGEL	0073	sls	2	23	
WANGEL	0059	smr	2	23	
WANGEL	0027	scs	3	24	
WANGEL	0039	scs	3	24	
WANGEL	0041	scs	3	24	
WANGEL	0343	sc	4	25	
WANGEL	1174A	ds	4	25	
WANGEL	0698	scs	4	26	
WANGEL	1188	dnr	4	27	
WANGEL	0028	scs	5	28	
WANGEL	0599	scs	5	28	
WANGEL	0568	scs	5	29	
WANGEL	0136	dn	5	30	
WANGEL	0137	dn	5	31	
WANGEL	0092	sl	6	32	
WANGEL	0130	sls	6	33	
WANGEL	0134	sls	6	33	
WANGEL	0433	sms	6	34	
WANGEL	0435	scs	6	34	
WANGEL	1135	sls	6	35	
WHICRE	W149	scs	6	36	
WANGEL	1081	scs	7	37	
WANGEL	1160	sls	7	37	
WANGEL	1158	ps	7	37	
WANGEL	1082	dns	7	38	
WHICRE	W147	smr	7	38	
WANGEL	1152	scr	7	39	
WANGEL	1170	scr	7	39	
WANGEL	0359	dn	8	40	
WANGEL	0454	dns	8	40	
WANGEL	1149	dn	8	40	
WANGEL	0369	ds	8	41	
WANGEL	0436	dns	8	42	
WANGEL	1107	dns	8	43	
WANGEL	1113	dns	8	43	
WANGEL	1115	dns	8	43	
WANGEL	0367	dns	9	44	
WANGEL	0368	scs	9	44	
WANGEL	0444	sms	9	44	
WANGEL	0443	scs	9	44	
WANGEL	0453	dns	9	44	
WANGEL	0445	dns	9	45	
WANGEL	0446	scs	9	45	
WANGEL	1092	scs	9	45	
WANGEL	1084	dnr	9	45	
WANGEL	1090	ds	9	45	
WANGEL	1088	slr	9	46	
WANGEL	0449	dns	9	47	
WANGEL	0450	ds	9	47	
WANGEL	0451	ss	9	47	
WANGEL	0456	dns	9	48	
WANGEL	0006	dns	10	49	
WANGEL	1125	daps	10	50	
WANGEL	1155	daps	10	50	
WANGEL	0243	scr	10	51	
WANGEL	1139	scr	10	51	
WANGEL	0135	smr	10	52	
WANGEL	1154	sls	10	52	
WANGEL	0341	dns	10	53	
WANGEL	0350	dns	10	53	
WANGEL	0353	dns	10	53	
WANGEL	0012	sl	10	54	
WANGEL	1134	daps	10	54	
WANGEL	0014	sls	10	54	
WANGEL	0015	scs	10	54	
WANGEL	0240	sc	10	55	
WHICRE	W138	sls	10	56	
WANGEL	0042	sc	10	57	
WANGEL	0043	dn	10	57	
WANGEL	0344	scs	11	58	
WANGEL	0346	scr	11	58	
WANGEL	0345	scs	11	58	
WANGEL	0347	sms	11	58	
WANGEL	0448	scs	11	58	
WANGEL	0009	dn	12	59	
WANGEL	0068	ds	12	59	
WANGEL	0572	scs	12	60	
WANGEL	0594	dns	12	60	
WANGEL	0575A	d	12	60	
WANGEL	1129	dns	12	61	
WANGEL	1144	ds	12	61	
WANGEL	0603	dnr	12	62	
WANGEL	0016	ds	13	63	
WANGEL	0019	dap	13	63	
WANGEL	0022	dap	13	64	
WANGEL	0029	dap	13	64	
WANGEL	0038	daps	13	64	
WANGEL	0049	dns	13	64	
WANGEL	0241	dn	13	65	
WANGEL	0242	dap	13	65	
WANGEL	0574	dap	13	65	
WANGEL	0141	ds	13	66	
WANGEL	0143	ds	13	66	
WANGEL	1176	daps	13	67	
WANGEL	0591	dap	13	68	
WANGEL	0592	d	13	68	
WANGEL	1136	ds	13	69	
WANGEL	1137	dn	13	70	
WANGEL	0017	ds	14	71	
WANGEL	0036	smr	14	72	
WANGEL	0021	ds	14	73	
WANGEL	0023	ds	14	73	
WANGEL	0348	dnr	14	74	
WANGEL	0349	d	14	75	
WANGEL	0018	dn	15	76	

PROJ	site	Habitat	gp50	gp200	data
					0 0.4004 0.5929 0.7853 0.9778 1.1702 1.3627 1.5551 1.7476 1.9400
WANGEL	0037	ds	15	76	
WANGEL	0020	d	15	76	
WANGEL	0075	ds	15	77	
WANGEL	0563	ds	15	77	
WANGEL	0088	ds	15	77	
WANGEL	0086	d	15	78	
WANGEL	0245	ds	15	79	
WANGEL	0575B	ds	15	79	
WANGEL	1127	ds	15	79	
WANGEL	1161	ds	15	79	
WANGEL	1153	ds	15	79	
WANGEL	0054	ds	15	80	
WANGEL	0072	ds	15	80	
WANGEL	0129	ds	15	80	
WANGEL	0321	ds	15	81	
WANGEL	0337	ds	15	82	
WANGEL	1141	dnr	15	82	
WANGEL	0126	ds	15	83	
WANGEL	1119	ds	15	83	
WANGEL	1085	ds	15	84	
WANGEL	1087	ds	15	84	
WANGEL	1097	ds	15	84	
WANGEL	1103	ds	15	84	
WANGEL	0434	ds	15	85	
WANGEL	0438	ds	15	85	
WANGEL	0030	d	16	86	
WANGEL	0087	dap	17	87	
WANGEL	1143	scs	17	88	
WANGEL	1117	dn	18	89	
WANGEL	1145	d	18	89	
BURPEN	B233	ds	18	90	
WANGEL	0026	p	19	91	
WANGEL	0596	scs	20	92	
WANGEL	0034	sl	21	93	
WANGEL	0601	sl	21	93	
WANGEL	0597A	sc	21	93	
WANGEL	0081B	sc	21	94	
WANGEL	0564C	sl	21	94	
WANGEL	0595A	scs	21	94	
WANGEL	0598A	sl	21	95	
WANGEL	0431	scs	22	96	
WANGEL	0463	scs	22	96	
WANGEL	0464	scs	22	96	
WANGEL	1093	scs	22	96	
WANGEL	0441	scs	22	97	
WANGEL	0442	scs	22	97	
WANGEL	1089	scs	22	98	
WANGEL	1151	d	23	99	
CAPPRE	M113	lim	23	100	
CAPPRE	M036	li	24	101	
CAPPRE	M074	li	24	101	
CAPPRE	M061	li	24	102	
ANGELISL	A129	du	25	103	
GIDISL	G133	du	25	103	
CAPPRE	M068	du	25	103	
BURPEN	B159	du	25	104	
BURPEN	B077	p	26	105	
DOLISL	D097	p	26	105	
DOLISL	D111	du	26	105	
GIDISL	G132	p	26	106	
DOLISL	D123	du	26	107	
CAPPRE	M070	du	26	108	
CAPPRE	M072	dus	26	108	
CAPPRE	M100	du	26	108	
DOLISL	D118	sl	27	109	
DOLISL	D104	du	28	110	
DOLISL	D105	du	28	110	
DOLISL	D121	du	28	110	
DOLISL	D122	du	28	110	
DOLISL	D112	dub	28	111	
ANGELISL	A141	sl	29	112	
CAPPRE	M063	du	29	113	
CAPPRE	M069	du	29	113	
CAPPRE	M005	dns	30	114	
CAPPRE	M029	dns	30	114	
CAPPRE	M033	dns	30	114	
CAPPRE	M043	dn	30	114	
CAPPRE	M032	dn	30	114	
CAPPRE	M039	d	30	114	
CAPPRE	M089	dn	30	114	
CAPPRE	M083	dn	30	114	
CAPPRE	M025	dns	30	115	
CAPPRE	M022	dn	30	116	
CAPPRE	M045	dn	30	116	
CAPPRE	M067	dn	31	117	
CAPPRE	M093	d	31	118	
BURPEN	B049	rp	32	119	
KARHIL	KH210	smr	32	120	
CAPPRE	M041	rp	32	120	
CAPPRE	M013	rp	32	121	
CAPPRE	M051	rp	32	121	
CAPPRE	M053	rpb	32	121	
CAPPRE	M109	rp	32	121	
CAPPRE	M111	rpb	32	121	
CAPPRE	M062	rp	32	122	
CAPPRE	M091	rp	32	122	
CAPPRE	M037	rp	32	123	
CAPPRE	M085	rp	32	123	
CAPPRE	M037A	rp	32	123	
CAPPRE	M006	d	33	124	
CAPPRE	M059	d	33	124	
CAPPRE	M066	d	33	125	
CAPPRE	M099	dap	33	125	
CAPPRE	M126	d	33	125	
CAPPRE	M084	d	33	125	
CAPPRE	M101	d	33	125	
CAPPRE	M124	d	33	125	
CAPPRE	M073	dn	33	126	

PROJ	site	Habitat	gp50	gp200	data
					0 0.4004 0.5929 0.7853 0.9778 1.1702 1.3627 1.5551 1.7476 1.9400
CAPPRE	M122	d	33	127	
CAPPRE	M001	dap	34	128	
CAPPRE	M027	dap	34	128	
CAPPRE	M003	dap	34	129	
CAPPRE	M021	dap	34	129	
CAPPRE	M002A	p	34	130	
CAPPRE	M105	p	34	130	
CAPPRE	M002B	p	34	131	
CAPPRE	M028B	ps	35	132	
CAPPRE	M102	dn	35	133	
CAPPRE	M108	dap	35	134	
CAPPRE	M004	ps	36	135	
CAPPRE	M008	ps	36	135	
CAPPRE	M054	ps	36	136	
CAPPRE	M092	ps	36	136	
CAPPRE	M110	ps	36	136	
CAPPRE	M096	ps	36	137	
CAPPRE	M103	sl	36	138	
CAPPRE	M106	p	36	138	
CAPPRE	M024	ps	36	139	
CAPPRE	M028	ps	36	139	
HARDAM	HD179	sls	37	140	
HARDAM	HD189	sls	37	140	
CAPPRE	M010	ss	37	141	
CAPPRE	M014	s	37	141	
CAPPRE	M015	dns	37	141	
CAPPRE	M016	ss	37	141	
CAPPRE	M017	dns	37	141	
CAPPRE	M057	dns	37	141	
CAPPRE	M020	slr	37	141	
CAPPRE	M046	sls	37	141	
CAPPRE	M052	scs	37	141	
CAPPRE	M048	scr	37	141	
CAPPRE	M050	sls	37	141	
CAPPRE	M018	scs	37	141	
CAPPRE	M086	p	37	141	
CAPPRE	M112	sls	37	141	
CAPPRE	M056	sls	37	142	
CAPPRE	M060	scs	37	142	
CAPPRE	M104	sms	37	142	
CAPPRE	M058	scs	37	142	
CAPPRE	M118	scs	37	142	
CAPPRE	M097	sls	37	142	
CAPPRE	M116	ss	37	142	
CAPPRE	M064	sls	37	142	
CAPPRE	M007	p	37	143	
CAPPRE	M081	scs	37	143	
CAPPRE	M094	ps	37	143	
CAPPRE	M023	sls	37	143	
CAPPRE	M088	slr	37	143	
CAPPRE	M079	slr	37	143	
CAPPRE	M011	scs	37	143	
CAPPRE	M075	slr	37	144	
CAPPRE	M077	rpg	37	144	
CAPPRE	M120	ss	37	145	
CAPPRE	M120A	ss	37	145	
CAPPRE	M026	ps	37	146	
CAPPRE	M031	sls	37	146	
CAPPRE	M030	p	37	146	
CAPPRE	M034	ps	37	147	
CAPPRE	M038	slr	37	147	
CAPPRE	M044	ps	37	147	
CAPPRE	M040	ss	37	147	
CAPPRE	M042	sls	37	147	
CAPPRE	M071	dns	37	147	
CAPPRE	M080	slr	37	147	
CAPPRE	M098	ss	37	147	
CAPPRE	M076	ss	37	147	
CAPPRE	M087	ss	37	147	
CAPPRE	M078	rp	37	147	
CAPPRE	M009	dns	38	148	
CAPPRE	M019	ds	38	148	
CAPPRE	M049	dn	38	148	
CAPPRE	M047	dn	38	148	
CAPPRE	M055	dn	38	148	
CAPPRE	M090	ds	38	148	
CAPPRE	M095	dns	38	148	
CAPPRE	M107	dns	38	148	
CAPPRE	M114	ds	38	148	
CAPPRE	M012	scr	38	149	
WANGEL	0010	rp	39	150	
WANGEL	1114	rp	39	150	
WANGEL	0061	rp	39	150	
WANGEL	1128	smr	39	151	
WANGEL	0338	smr	39	152	
WANGEL	1166	scr	39	152	
WANGEL	1094	dnr	40	153	
WANGEL	1099	dnr	40	153	
WANGEL	1106	dnr	40	154	
WHICRE	W139	rp	41	155	
WHICRE	W144	rp	41	155	
WHICRE	W148	rp	41	155	
WHICRE	W145	rpv	41	155	
WHICRE	W150	rp	41	155	
WHICRE	W146	rpv	41	156	
WHICRE	W153	rp	41	156	
ANGELISL	A127	rpr	42	157	
GIDISL	G131	rp	42	157	
ANGELISL	A133	rp	42	158	
ANGELISL	A140	rpv	42	158	
DOLISL	D110	rpv	42	158	
GIDISL	G142	rpv	42	158	
DOLISL	D117	rp	42	158	
BURPEN	B155	rpg	42	159	
BURPEN	B002	rp	43	160	
BURPEN	B238	rpr	43	160	
BURPEN	B038	rp	43	161	
BURPEN	B171	rp	43	161	

PROJ	site	Habitat	gp50	gp200	data
					0 0.4004 0.5929 0.7853 0.9778 1.1702 1.3627 1.5551 1.7476 1.9400
BURPEN	B164	rpr	43	161	
BURPEN	B028	rp	43	162	
BURPEN	B050	rp	43	162	
BURPEN	B074	rp	43	162	
DOLISL	D098	scr	43	163	
DOLISL	D099	scr	43	163	
BURPEN	B003	dnr	44	164	
BURPEN	B018	rpv	44	164	
BURPEN	B010	rpv	44	164	
BURPEN	B061	rpv	44	164	
BURPEN	B014	rpv	44	164	
BURPEN	B064	rpv	44	164	
BURPEN	B023	rp	44	164	
BURPEN	B031	rpg	44	164	
BURPEN	B066	rpv	44	164	
BURPEN	B082	rpv	44	164	
BURPEN	B192	rp	44	164	
BURPEN	B195	rp	44	164	
BURPEN	B232	rp	44	164	
BURPEN	B052	rpv	44	164	
BURPEN	B026	rpr	44	164	
BURPEN	B044	rpr	44	164	
BURPEN	B163	dn	44	164	
BURPEN	B059	rpr	44	164	
BURPEN	B072	rp	44	164	
BURPEN	B078	rp	44	164	
BURPEN	B154	rp	44	164	
BURPEN	B035	rp	44	165	
BURPEN	B173	rp	44	165	
BURPEN	B174	sr	44	165	
BURPEN	B080	rp	44	165	
BURPEN	B160	rp	44	165	
DOLISL	D100	rp	44	165	
DOLISL	D108	rp	44	165	
DOLISL	D089	rpv	44	165	
DOLISL	D087	rpv	44	165	
DOLISL	D114	rp	44	165	
DOLISL	D106	rpr	44	165	
DOLISL	D094	rpr	44	166	
DOLISL	D103	rpr	44	166	
DOLISL	D125	rp	44	166	
BURPEN	B039	dnr	44	167	
BURPEN	B183	rpv	44	167	
BURPEN	B055	smr	44	167	
BURPEN	B056	dnr	44	167	
BURPEN	B084	rpv	44	167	
BURPEN	B182	rp	44	167	
BURPEN	B085	smr	44	167	
BURPEN	B093	dnr	44	167	
BURPEN	B079	smr	44	168	
BURPEN	B169	rp	44	168	
BURPEN	B090	rpg	44	168	
BURPEN	B091	sr	44	168	
BURPEN	B045	scr	44	169	
BURPEN	B046	rp	44	169	
HARDAM	HD177	rp	45	170	
HARDAM	HD178	slr	45	170	
HARDAM	HD180	rp	45	170	
HARDAM	HD207	rp	45	170	
HARDAM	HD208	rp	45	170	
HARDAM	HD209	rp	45	170	
KARHIL	KH211	rp	45	170	
KARHIL	KH212	rp	45	170	
HARDAM	HD191	rp	45	170	
HARDAM	HD206	rp	45	170	
HAMIR	HR201	rp	45	171	
HAMIR	HR203	rp	45	171	
HAMIR	HR202	rp	45	171	
HARDAM	HD188	rp	45	172	
HARDAM	HD200	rp	45	172	
HARDAM	HD190	rps	45	173	
ANGELISL	A113	scs	46	174	
GIDISL	G143	sms	46	174	
ANGELISL	A126	smr	46	174	
ANGELISL	A120	scs	46	174	
GIDISL	G136	sr	46	174	
GIDISL	G130	smr	46	174	
BURPEN	B186	sc	46	175	
BURPEN	B187	scr	46	175	
BURPEN	B001	scr	46	176	
BURPEN	B004	dnr	46	176	
BURPEN	B166	sl	46	176	
BURPEN	B024	scr	46	176	
BURPEN	B083	ss	46	176	
BURPEN	B041	scr	46	176	
BURPEN	B022	rp	46	176	
BURPEN	B027	scr	46	176	
BURPEN	B057	st	46	176	
BURPEN	B165	scs	46	176	
BURPEN	B216	scr	46	176	
BURPEN	B217	scr	46	176	
BURPEN	B219	dn	46	176	
BURPEN	B025	str	46	177	
DOLISL	D102	slr	46	177	
BURPEN	B030	ss	46	177	
BURPEN	B065	sms	46	177	
BURPEN	B043	scr	46	177	
BURPEN	B032	scr	46	177	
BURPEN	B033	ps	46	177	
DOLISL	D086	ss	46	177	
BURPEN	B047	dns	46	178	
BURPEN	B231	sls	46	178	
BURPEN	B092	smr	46	178	
BURPEN	B194	sls	46	178	
BURPEN	B012	slr	46	179	
BURPEN	B016	smr	46	179	
BURPEN	B013	dn	46	179	
BURPEN	B048	str	46	179	

PROJ	site	Habitat	gp50	gp200	data
					0 0.4004 0.5929 0.7853 0.9778 1.1702 1.3627 1.5551 1.7476 1.9400
BURPEN	B070	scr	46	179	
BURPEN	B073	sr	46	179	
BURPEN	B076	sms	46	179	
BURPEN	B068	dn	46	180	
BURPEN	B069	dn	46	180	
BURPEN	B096	ss	46	180	
BURPEN	B157	sr	46	180	
BURPEN	B011	dn	47	181	
BURPEN	B162	dns	47	181	
BURPEN	B181	dn	47	181	
BURPEN	B053	sls	47	181	
BURPEN	B185	dns	47	181	
BURPEN	B191	dns	47	181	
BURPEN	B054	sls	47	181	
BURPEN	B019	d	47	181	
BURPEN	B067	dns	47	181	
BURPEN	B029	dns	47	181	
BURPEN	B151	dns	47	181	
BURPEN	B235	dn	47	181	
BURPEN	B234	ps	47	182	
BURPEN	B239a	ps	47	182	
BURPEN	B239b	ps	47	182	
DOLISL	D101	ps	47	183	
BURPEN	B063	du	47	184	
BURPEN	B170	du	47	184	
BURPEN	B009	sls	48	185	
BURPEN	B034	sls	48	185	
BURPEN	B196	sl	48	185	
BURPEN	B236	sl	48	185	
BURPEN	B071	sls	48	186	
KARHIL	KA204	sls	48	187	
KARHIL	KA205	sls	48	188	
ANGELISL	A128	dnr	49	189	
BURPEN	B175	ds	49	190	
CAPPRE	M065	p	49	191	
CAPPRE	M082	ps	49	191	
BURPEN	B006	dn	49	192	
BURPEN	B184	sls	49	192	
CAPPRE	M035	ps	49	193	
BURPEN	B051	sr	49	194	
BURPEN	B218	dns	49	194	
DOLISL	D107	sl	49	194	
DOLISL	D124	slr	49	194	
BURPEN	B172	sts	49	195	
BURPEN	B005	ds	50	196	
BURPEN	B017	dn	50	196	
BURPEN	B060	dn	50	196	
BURPEN	B040	dn	50	196	
BURPEN	B081	dns	50	196	
DOLISL	D088	dn	50	196	
BURPEN	B193	dns	50	196	
BURPEN	B062	dn	50	196	
DOLISL	D109	dns	50	196	
BURPEN	B007	dnr	50	197	
BURPEN	B042	dnr	50	197	
BURPEN	B021	dnr	50	197	
BURPEN	B008	dn	50	198	
BURPEN	B167	dn	50	198	
BURPEN	B015	dnr	50	198	
BURPEN	B230	dns	50	198	
BURPEN	B020	dnr	50	198	
BURPEN	B152	dns	50	198	
BURPEN	B237	ds	50	199	
BURPEN	B036	dnr	50	200	
BURPEN	B058	dns	50	200	
BURPEN	B220	dns	50	200	
DOLISL	D095	dnr	50	200	
DOLISL	D115	dnr	50	200	
					0 0.4004 0.5929 0.7853 0.9778 1.1702 1.3627 1.5551 1.7476 1.9400

CPRES - Cape Preston, ANGELISL - Angel Island, DOLISL - Dolphin Island, GIDISL - Gidley Island, BURPEN - Burrup Peninsular,
HAMIR - Hamersley Rail, HARDAM - Harding Dam, KARHIL - Karratha Hills, WHICRE - Whim Creek, WANGEL - Chichester
See Table 6 for description of Habitats

Appendix 3

Two way table of sites by species

The original version of "**Appendix 3: Two way table of sites by species**" in Volume 2 is in digital format only. It comprises a large table split up in 3 Microsoft Excel Spreadsheets (SEE: CD in this Volume)

Pages of Sheets 1, 2 & 3 printed from the digital version should be arranged in the following order to reflect a full view of the digital version

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Page 12	Page 24	Page 36	Page 48

Appendix 3: Sheet 1 Page 1

Ord	Field	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52
1	Area	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL
2	Site	0001	0069	0077	0040	0044	0053	0127	1157	0587	0051	0091	0593	0070	0085	1105	0326	0342	0340	0350A	0352	0354	1096	1142	0065	1086	1108	1098	1083	1111	1095	0358	0452	1086A	0460	1121	0272	0440	0439	0590	1138	0432	0437	0013	1159	0128	0131	1102	1140
3	Habitat_code	sls	sls	sls	scr	sls	scs	sls	sls	scs	sls	sls	sms	sls	sl	sls	sm	sms	smr	sms	scs	scs	scs	ps	dns	scs	smr	scr	sls	sms	scs	scs	scs	sls	sls	sls	ss	scs	sls	sls	ps	dns	dns	ps	dns	ps	dns	scs	ps
6	Coastal																																																
7	# Species	14	12	19	6	9	13	12	16	15	9	11	12	11	21	12	7	9	9	8	10	15	6	7	10	21	10	22	21	18	21	22	16	12	30	23	12	15	22	14	7	11	17	11	18	15	13	13	6
8	Gp50 #	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9	Gp200 #	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	5	5	5	5	5	6	6	6	6	6	6	6	7	7	8	8	8	8
gp100	SPECIES_TOT_name	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52
1	Euphorbia aff. australis type 2 (prostrate)																																																
1	Euphorbia aff. australis (B170-4)																																																
1	Euphorbia aff. australia (B191)																																																
1	Phyllanthus lacunellus																																																
1	Bonamia pannosa																																																
2	Mukia aff. maderaspatana sp. F																																																
2	Digitaria brownii																																																
2	Bidens bipinnata																																																
2	Mukia aff. maderaspatana sp. C																																																
2	Hibiscus aff. platychlamys (M9.15)																																																
2	Indigofera monophylla (grey/green leaflet form)																																																
2	Hibiscus aff. platychlamys (M39.14)																																																
2	Corchorus aff. walcotti (K.J. Atkins 570)																																																
2	Corchorus aff. sidoides (KA204-10)																																																
2	Polycarpaea longiflora (White form, M13-7)																																																
2	Solanum gabrielae																																																
2	Solanum lasiophyllum							1								1			1							1		1		1		1	1	1										1			1		
2	Eremophila longifolia																																																
2	Leptopus decaisnei var. decaisnei																																																
2	Euphorbia aff. drummondii (M87)																																																
2	Maireana tomentosa																																																
2	Cassia pruinosa x ?glutinosa																																																
2	Tephrosia aff. supina (M19-3)																																																
2	Indigofera monophylla (Cape Preston form)																																																
2	Tephrosia clementii													1																																				
2	Sida clementii																																																
2	Sida aff. cardiophylla (site 1086)																									1																								
2	Hibiscus aff. coatesii (site 664)																																																
3	Sida aff. fibulifera (M37.16)																																																
3	Pterocaulon sphaeranthoides x sphacelatum																																																
3	Porana commixta																																																
4	Hibiscus aff. platychlamys (site 1139)																																																
4	Paraneurachne muelleri																								1																									
4	Isotropis atropurpurea																																	1																
5	Ptilotus auriculifolius		1																																															
5	Tribulus hirsutus						1				1																																							
5	Euphorbia boophthona																																																
5	Abutilon trudgenii																																																
5	Waltheria indica																																																
5	Solanum diversiflorum																																																
5	Dysphania rhadinostachya subsp. rhadinostachya																											1			1	1	1	1	1		1													
5	Ptilotus fusiformis var. fusiformis							1																											1														
6	Tephrosia aff. densa (B17)																																																
6	Sida rohlenae var. rohlenae																																																
6	Nicotiana benthamiana																																																

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6	Sida sp. 'rugose'																																																
6	Amaranthus interruptus																																																
6	Gomphrena canescens																																																
7	Eremophila forrestii x latrobei																																																
7	Ptilotus clementii																																																
7	Haloragis gossei																																																
8	Cullen pogonocarpum																																																
9	Keraudrenia nephrosperma																																																
9	Heliotropium chrysocarpum																																																
10	Pluchea ferdinandi-muelleri																																																
11	Euphorbia aff. australis type 1 (erect stems)																																																
11	Zaleya galericulata																																																
11	Cuscuta victoriana																																																
12	Cassia oligophylla x helmsii																																																
13	Euphorbia tannensis subsp. eremophila (Burrup form)																																																
13	Indigofera linnaei																																																
13	Trianthema turgidifolia																																																
13	Salsola tragus																																																
13	Heliotropium cunninghamii																																																
13	Synaptantha tillaeacea var. tillaeacea																																																
13	Eulalia aurea																																																
14	Setaria verticillata																																																
15	Sida aff. fibulifera (M85.15)																																																
15	Themeda triandra																							1																									
15	Acacia sclerosperma																																																
15	Convolvulus erubescens																																																
15	Cenchrus setigerus																																																
15	Prosopis pallida																																																
15	Dactyloctenium radulans																																																
15	Goodenia forrestii																																		1														
15	Achyranthes aspera																																																
15	Alternanthera nana																																						1										
15	Malvastrum americanum																																																
15	Acacia farnesiana																																																
15	Corchorus tridens														1																																		
15	Ipomoea muelleri																																																
16	Enneapogon oblongus																																																
16	Boerhavia burbidgeana																																																
16	Operculina aequisepala																																																
16	Amaranthus mitchellii																																						1										
17	Panicum decompositum																																																
17	Santalum lanceolatum																																																
17	Abutilon cunninghamii																																																
17	Myoporum montanum																																																
18	Sida aff. fibulifera (MET Site 1346)																																																
19	Abutilon aff. lepidum (1) (MET 15 352)																																																
19	Bothriochloa ewartiana																																																
20	Heliotropium inexplicitum																																																
21	Amaranthus sp. (M99-1)																																																
21	Alternanthera nodiflora																																																
21	Abutilon amplum																																																
21	Erythrina vespertilio																																																
21	Passiflora foetida																																																
21	Vigna lanceolata var. lanceolata																																																
21	Cucumis melo subsp. agrestis																																																
21	Melochia pyramidata																																																
21	Rostellularia adscendens var. clementii																																																
22	Eragrostis dielsii																																																
22	Trianthema triquetra												1																																				
23	Cyperus bulbosus																																																
23	Samolus repens																																																
23	Dysphania plantaginella																																																
23	Swainsona kingii																																																
24	Marsilea hirsuta																																																

Appendix 3: Sheet 1 Page 3

24	Centipeda minima																																																
24	Cyperus iria																																																
25	Sida spinosa																																																
26	Boerhavia type 2																																																
26	Amaranthus aff. pallidiflorus (WAS1127)																																																
27	Amaranthus aff. interruptus (MET 16,114)																																																
27	Abutilon aff. fraseri (1)																																																
27	Striga squamigera																																																
28	Boerhavia type 1																																																
28	Cymbopogon bombycinus																																																
28	Glycine canescens																																																
29	Mukia aff. maderaspatana sp. B																																																
29	Tribulus aff. occidentalis (M68.4)																																																
29	Sclerolaena costata																																																
29	Ptilotus helipteroides var. helipteroides																																																
30	Euphorbia aff. australis (M32-9)																																																
30	Dicladanthera forrestii																																																
31	Euphorbia boophthona (Large seed form)																																																
31	Abutilon aff. lepidum (2) (MET 15 970)																																																
31	Cleome oxalidea																																																
31	Heliotropium heteranthum																																																
32	Bulbostylis turbinata (form B; M1.16)																																																
32	Atriplex codonocarpa																																																
32	Trianthema aff. triquetra (M3.35)																																																
32	Hibiscus brachysiphonius																																																
33	Sida aff. fibulifera 'var. L'																																																
33	Streptoglossa liatroides																																																
33	Ptilotus murrayi var. murrayi																																																
33	Eragrostis xerophila																																																
33	Neptunia dimorphantha																																						1									
33	Eriachne benthamii																																																
33	Xerochloa imberbis																																																
33	Acacia xiphophylla																																																
33	Fimbristylis depauperata																																																
34	Indigastrum parviflorum (Cape Preston form; M23.12)																																																
34	Aristida contorta																																																
34	Iseilema dolichotrichum																																																
34	Sporobolus australasicus														1																																		
34	Dichanthium sericeum subsp. humilius																																																
34	Ptilotus aervoides	1																																															
34	Enneapogon caerulescens var. occidentalis																																																
34	Cassia aff. oligophylla (thinly sericeous)																																																
34	Brachyachne prostrata												1																																				
34	Sarcostemma viminale subsp. australe																														1																		
34	Cassia glutinosa x luerssenii																																																
34	Tragus australianus																																																
34	Maireana planifolia																																																
34	Sclerolaena uniflora																																																
34	Sclerolaena eriacantha																																																
34	Acacia victoriae																																																
34	Eremophila forrestii subsp. forrestii																														1																		
35	Enteropogon acicularis																																																
35	Cassia chatelainiana																																																
35	Schoenoplectus laevis																																																
36	Mimulus gracilis																																																
37	Crotalaria dissitiflora subsp. benthamiana																																																
37	Stemodia kingii																																																
37	Aristida latifolia																																																
37	Heliotropium conocarpum																																																
37	Mukia sp.D Flora of Australia(A.A.Mitchell PRP 1121)																																																
37	Brachyachne convergens																																																
37	Desmodium muelleri																																																
37	Boerhavia paludosa																																								1							
37	Sida fibulifera																																																

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37	Streptoglossa bubakii													1														1																					
37	Ptilotus gomphrenoides var. gomphrenoides																																																
37	Rhynchosia sp. Barowanna Hill (MET 15 623)																																																
37	Paspalidium aff. jubiflorum (MET 15 807)																																																
37	Iseilema aff. fragile																																																
37	Panicum laevinode																																																
37	Euphorbia sp. Harding (MET 15 683)																																																
37	Heliotropium crispatum																																																
37	Neptunia monosperma																																																
38	Euphorbia sp. (site 1089)																																																
38	Crotalaria juncea																																																
38	Hibiscus trionum var. vesicarius																																																
38	Vittadinia obovata																																																
39	Sida aff. fibulifera (MET Site 1308)																																																
39	Polygala sp. (M21-7)																																																
39	Eragrostis setifolia																																																
39	Oldenlandia sp. 'gilgai'																																																
40	Goodenia aff. pascua																																																
40	Abutilon malvifolium																																																
40	Sclerolaena glabra																																																
40	Cassia hamersleyensis																																																
40	Cullen graveolens																																																
40	Ptilotus carinatus																																																
41	Euphorbia aff. drummondii (MET 15211)																																																
41	Iseilema membranaceum																																																
41	Chloris pectinata																																																
41	Swainsona leeana																																																
42	Heliotropium sp. (M45-21)																																																
42	Blumea tenella																																																
42	Goodenia nuda																																																
43	Polymeria (Site 1365)																																																
43	Abutilon macrum																																																
44	Eriachne aristidea																																																
45	Tripogon loliiformis																																																
45	Cheilanthes sieberi subsp. sieberi																																																
46	Rhynchosia sp. King Bay (B181-13)																																																
46	Sida aff. fibulifera (B181-5B)																																																
46	Solanum esuriale																																																
47	Euphorbia sp. (BPBS10-50)																																																
47	Tephrosia aff clementii (4) (M35-14)																																																
48	Abutilon sp. Fortescue (M. Maier 28A-4)																																																
48	Hibiscus aff. platychlamys (M39-14)																																																
48	Tephrosia leptoclada																																																
48	Zornia albiflora																																																
49	Ptilotus spathulatus																																																
50	Eragrostis eriopoda																																																
50	Eriachne ovata																																																
50	Crotalaria cunninghamii																																																
50	Ipomoea polymorpha																																																
50	Ptilotus axillaris																																																
51	Schizachyrium fragile																															1																	
51	Desmodium filiforme																																																
51	Zornia muelleriana subsp. congesta																																																
51	Aristida holathera var. holathera																																																
52	Abutilon oxycarpum subsp. prostratum																																																
53	Abutilon aff. dioicum (HD72-14)																																																
53	Eucalyptus xerothermica																																																
53	Amaranthus aff. pallidiflorus (D89)																																																
53	Ficus opposita																																																
53	Phyllanthus ciccoides																																																
53	Ficus virens var. sublanceolata																																																
53	Paspalidium tabulatum (Burrup Form)																																																
53	Dichrostachys spicata																																																
53	Alectryon oleifolius																																																

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53	Abutilon fraseri																																															
53	Rhynchosia sp. Burrup (82-1C)																																															
53	Dicliptera armata							1																																								
53	Ipomoea costata																																															
53	Terminalia supranitifolia																																															
53	Brachychiton acuminatus																																															
53	Pittosporum phylliraeoides var. phylliraeoides																																															
53	Clerodendrum tomentosum																																															
53	Rhagodia eremaea																																															
53	Scaevola spinescens																																															
53	Mukia maderaspatana																																															
53	Tinospora smilacina																																															
53	Jasminum didymum subsp. lineare																																	1	1													
53	Flueggea virosa subsp. melanthesoides																																					1									
53	Ehretia saligna var. saligna																																					1									
53	Ptilotus obovatus																																															
53	Ficus platypoda																																															
53	Trichosanthes cucumerina																																															
53	Commicarpus australis																																															
53	Capparis spinosa var. nummularia																																															
53	Melhania sp. Burrup																																															
53	Commelina ensifolia																																															
53	Cyperus hesperius																																															
53	Plumbago zeylanica																																															
53	Ficus opposita var. indecora																																															
53	Euphorbia sp. (site 1163)																																															
53	Tephrosia sp.B Kimberley Flora(C.A.Gardner 7300)																																															
53	Cynanchum floribundum																																															
53	Triodia angusta (Burrup Form)																																											3				
53	Triodia epactia (Burrup Form)																																															
53	Themeda sp. Burrup (B84)																																															
53	Triodia wiseana (Burrup Form)																																															
53	Cajanus cinereus																		1								1																						
53	Sorghum plumosum																																															
53	Pentalepis trichodesmoides																										1			1																			
53	Stylobasium spathulatum																																															
53	Adriana tomentosa																																															
53	Rhagodia preissii subsp. obovata																																															
53	Canavalia rosea																																															
53	Abutilon indicum var. australiense																																															
53	Vigna lanceolata var. latifolia																																															
54	Melhania sp. Fortescue (M33-22)																																															
54	Sida aff. fibulifera (oblong; MET 15 220)																																															
54	Tribulus occidentalis																																															
54	Gymnanthera cunninghamii																																															
54	Hakea chordophylla							2																				1																				
54	Sida aff. fibulifera (B64-13B)																																															
54	Ptilotus gaudichaudii var. gaudichaudii																																															
54	Pluchea tetranthera																																															
55	Vigna sp. Burrup (B18)																																															
55	Tephrosia aff. supina																																															
55	Striga curviflora																																															
55	Triumfetta appendiculata (Burrup Form)																																															
55	Corchorus walcottii																																															
55	Indigofera monophylla (Burrup form)																																															
55	Acacia colei																																															
55	Acacia orthocarpa																																															
55	Acacia pyrifolia (green)																																															
55	Polycarpaea longiflora (red form)																																															
55	Abutilon lepidum																																															
55	Eriachne obtusa																																															
55	Goodenia microptera			1																																												
55	Streptoglossa decurrens														1													1																					
55	Hibiscus sturtii var. campylochlamys																															1			1													

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55	Pterocaulon sphaeranthoides																																																
55	Acacia elachantha																																																
55	Amaranthus sp. (D111)																																																
55	Euphorbia sp. (B170-4)																																																
55	Stylosanthes hamata																																																
55	Polymeria calycina																																																
55	Pluchea dentex																																																
55	Cullen badocanum																																																
56	Cheilanthes aff. tenuifolia (B18)																																																
56	Evolvulus alsinoides var. decumbens																																																
56	Rhodanthe margarethae																																																
56	Ficus opposita var. aculeata																																																
56	Vittadinia virgata																																																
56	Solanum cleistogamum																																																
57	Ehretia ? (B23-22)																																																
57	Chenopodium pumilio																																																
57	Nicotiana occidentalis subsp. occidentalis																																																
57	Ventilago viminalis																																																
58	Gossypium robinsonii																																																
59	Fimbristylis aff. dichotoma (M75-4)																																																
59	Crotalaria medicaginea (Burrup form; B65-11)																																																
59	Tephrosia aff supina (MET 12,357)																																																
59	Trachymene aff. oleracea (B61)																																																
59	Evolvulus alsinoides var. villosicalyx						1																						1														1						
59	Triumfetta clementii																											1	1		1														1				
59	Gomphrena cunninghamii																																						1									1		
59	Acacia pyrifolia (slender, white)																																																
59	Hybanthus aurantiacus									1																1									1														
59	Bonamia media var. villosa			1						1			1															1																1					
59	Enchylaena tomentosa																																																
59	Boerhavia coccinea																																							1									
59	Abutilon aff. lepidum (4)																																																
59	Paspalidium clementii																																																
59	Ptilotus exaltatus var. exaltatus																																				1												
59	Digitaria ctenantha																																																
59	Euphorbia biconvexa																																																
59	Portulaca oleracea																																																
59	Alysicarpus rugosus																																																
59	Portulaca pilosa																																																
59	Polygala sp. (M23-2)																																																
60	Hakea lorea ssp. lorea	1		1	1	1		1	2	1				1												1		1			1		1		1	1		1	1	1	2								
60	Acacia inaequilatera				1	1	1	2	2																	2		1	1	1	1			1		2								2	2			1	
60	Cassia glutinosa	1	1	1					1					1	1	1				1	1	1	2			1			1	1		1	1		1		1	1	1					1		1			
60	Corymbia hamersleyana			1		1	1	1	1	1				1	2	2	1	1	1	1		1			2	2				1	1	1	1	1	3	2			2	1	2				1				
60	Bulbostylis barbata		1			1	1	1								1					1									1	1	1	1	1	1	1	1	1									1	1	
60	Mollugo molluginis	1	1	1		1	1	1	1				1								1														1	1								1	1	1	1	1	1
60	Tephrosia supina			1																																				1		1	1						
60	Gossypium australe (Burrup Peninsula form)		1	1																											1												1						
60	Cassia oligophylla				1						1							1					1															1					1		1				
60	Eriachne mucronata																																										1						
60	Cassia venusta																																										1			1	1		
60	Solanum phlomoides																																																
60	Rhynchosia cf. minima														1														1									1	1	1									
60	Indigofera trita																1																				1	1											
60	Chrysopogon fallax														1																																		
60	Cassytha capillaris																			1															1								1						
60	Cleome viscosa	1										1										1															1											1	
60	Phyllanthus maderaspatensis var. angustifolius														1																																		
60	Trichodesma zeylanicum						1	1							1		1	1				1						1				1													1	1	1	1	1
60	Solanum horridum											1														1							1		1				1	1				1	1		1		
60	Pterocaulon sphacelatum															1													1						1	1												1	
60	Cenchrus ciliaris														1																																		
60	Acacia bivenosa		1	2								1	1	4	3	3				1	1	1		1									1	1		1									1				
60	Cymbopogon ambiguus																											1	1	1	1								1									1	

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60	Acacia coriacea																																						1										
60	Grevillea pyramidalis			1													1	1			1	2				1	1	1		1		1				1					2								
60	Boerhavia gardneri		1				1							1									1						1	1						1	1		1				1			1			
60	Aerva javanica																																																
60	Indigofera colutea										1				1																																		
60	Indigofera linifolia																																1						1			1							
60	Euphorbia coghlanii														1				1			1													1				1										
60	Swainsona formosa																																		1	1													
60	Crotalaria novae-hollandiae subsp. novae-hollandiae																					1																											
61	Urochloa sp. "glabrous apices"																																																
61	Cullen leucanthum (Cape Preston form; M59.9)																																																
61	Chenopodium melanocarpum																																																
61	Sauropus trachyspermus																																																
62	Cynanchum sp. (1)																																																
62	Argemone ochroleuca subsp. ochroleuca																																																
62	Datura leichhardtii																																																
62	Nicotiana rosulata subsp. rosulata																																																
62	Glinus lotoides																																																
62	Citrullus colocynthis																																																
63	Dichanthium fecundum																																																
63	Ammannia multiflora																																																
64	Najas tenuifolia																																																
64	Vallisneria spiralis																																																
64	Echinochloa colona																																																
64	Eragrostis crateriformis																																																
65	Polymeria aff. calycina																																																
66	Urochloa gilesii subsp. occidentalis																																																
67	Perotis rara																																																
67	Citrullus lanatus																																																
68	Triumfetta appendiculata (Whim Creek form)																																														1		
68	Mukia aff. maderaspatana (4) (green not scabrid)																																																
68	Euphorbia aff. drummondii (MET 15 030)											1																																					
68	Triodia longiceps																																																
68	Eriachne sp. aff. festucacea																																																
68	Eleocharis geniculata																																																
68	Stylidium fluminense																																																
68	Lotus australis																																																
68	Centaurium spicatum																																																
68	Lobelia quadrangularis																																																
69	Peplidium sp. E (Flora of Australia)																																																
69	Cenchrus echinatus																																																
69	Melaleuca linophylla																																																
69	Schoenoplectus litoralis																																																
69	Melaleuca argentea																																																
69	Melaleuca glomerata																																																
69	Eucalyptus camaldulensis var. obtusa																																																
69	Acacia ampliceps																																																
69	Typha domingensis																																																
69	Fimbristylis elegans																																																
69	Fimbristylis littoralis														1																																		
69	Eriachne tenuiculmis																																																
69	Cyperus vaginatus																																																
69	Stemodia grossa														1									2												1													
69	Sesbania cannabina																																																
69	Ammannia baccifera																																																
69	Pluchea rubelliflora																							1																									
69	Cyperus bifax																																																
69	Eucalyptus victrix																																			1													
69	Terminalia canescens							1		1																									1		1	1	1	1		1				1	1		
69	Amaranthus pallidiflorus																																						1										
69	Polymeria ambigua																																																
70	Potamogeton tricarinatus																																																
70	Setaria dielsii																																																
70	Basilicum polystachyon																																																

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70	Hibiscus panduriformis																																																
70	Cyperus difformis																																																
70	Alternanthera angustifolia																																																
70	Ludwigia perennis																																																
70	Bergia pedicellaris																																																
70	Ipomoea plebeia																																																
71	Eragrostis cumingii																																																
71	Eragrostis tenellula																																																
71	Goodenia lamprosperma																																																
71	Cyperus squarrosus														1																																		
71	Fimbristylis microcarya																																																
71	Ammannia auriculata																																																
71	Ipomoea coptica																																																
71	Flaveria australasica																																																
72	Ruppia sp.																																																
72	Dysphania kalpari																																																
73	Amyema sp. aff. bifurcata																																																
73	Calandrinia ptychosperma																																																
73	Calandrinia quadrivalvis																																																
74	Amaranthus aff. mitchellii																																																
74	Sonchus oleraceus																																																
74	Digitaria ammophila																																																
74	Diplachne fusca																																																
74	Cynodon dactylon																																																
74	Sesbania formosa																																																
74	Pseudognaphalium luteo-album																																																
74	Nicotiana occidentalis subsp. obliqua																																																
74	Bergia trimera																																																
75	Hibiscus aff. platychlamys (M35.11)																																																
75	Euphorbia sp. (M80-1)																																																
75	Euphorbia schultzii																																																
76	Crotalaria medicaginea (Cape Preston form; M63.12)																																																
76	Atriplex bunburyana																																																
76	Capparis umbonata																																																
77	Cymbopogon obtectus																																																
77	Acacia marramamba																																																
77	Stackhousia muricata																																																
77	Diplopeltis eriocarpa																																																
77	Ptilotus calostachyus var. calostachyus																																																
78	Triumfetta cf. propinqua (B13-13)																																																
78	Tephrosia aff. densa (B16-22)																																																
78	Tephrosia aff. supina (HD133-20)																																																
78	Crotalaria trifoliastrum																																																
78	Hibiscus sturtii var. platychlamys																																																
78	Cullen pustulatum																																																
78	Acacia colei x elachantha																																																
78	Sida aff. cardiophylla (B22-37)																																																
78	Euphorbia sp. (B34-11)																																																
78	Tephrosia aff. clementii (5)B184																																																
78	Acacia stellaticeps																																																
78	Euphorbia drummondii																																																
79	Leptochloa fusca subsp. fusca																																																
79	Minuria integerrima																																																
79	Sida aff. fibulifera (B235-7)																																																
79	Dentella asperata																																																
80	Sida aff. fibulifera (D109)																																																
80	Enneapogon polyphyllus																																																
81	Amaranthus aff. pallidiflorus (WC148-11)																																																
81	Polycarpaea longiflora (Whim Creek form, WC147-7)																																																
81	Solanum petrophilum																																																
81	Gossypium australe (Whim Creek form)																																																
81	Carissa lanceolata																																																
81	Paspalidium tabulatum (Whim Creek form)																																																
81	Aristida nitidula																																																

81	Triodia angusta																																																
81	Hibiscus goldsworthii																																																
82	Sida sp. Wittenoom (W.R. Barker 1962)																																																
82	Eremophila cuneifolia																																																
83	Rhynchosia minima																																																
83	Enneapogon intermedius																																																
83	Hibiscus coatesii																																																
84	Sida aff. fibulifera (M100.22)																																																
84	Euphorbia sp. (M100-4)																																																
84	Amaranthus sp. (M100-2)																																																
84	Triraphis mollis																																																
85	Euphorbia sp. (G133-2)																																																
85	Scaevola anchusifolia																																																
85	Euphorbia sp. (BPBS2)																																																
85	Ptilotus villosiflorus																																																
85	Spinifex longifolius																																																
85	Scaevola crassifolia																																																
85	Scaevola cunninghamii																																																
85	Cleome sp. Burrup (B159-5)																																																
85	Maireana melanocoma																																																
85	Whiteochloa airoides																																																
85	Euphorbia sp. (D105-1)																																																
85	Atriplex isatidea																																																
85	Swainsona pterostylis																																																
85	Threlkeldia diffusa																																																
85	Sesuvium portulacastrum																																																
86	Abutilon aff. lepidum (5)																																																
86	Indigastrum parviflorum (Whim Creek form; W138-3)																																																
86	Tephrosia aff. clementii (2)																																																
86	Triodia aff. basedowii																																																
86	Eriachne helmsii																							1																									
86	Corchorus parviflorus																																																
86	Euphorbia aff. australis var. 1 (MET 12 337)																																																
86	Diplatia grandibractea																																																
86	Sida aff. fibulifera (felty edges; site 655)																																																
86	Acacia sphaerostachya																																											1				
86	Trianthema pilosa																																																
86	Mukia aff. maderaspatana (1) (grey scabrid rounded)																																																
86	Melhania oblongifolia																																																
86	Abutilon cryptopetalum																																																
86	Boerhavia repleta																																																
86	Cucumis melo																																																
86	Scaevola scabrida																																																
86	Hibiscus platychlamys																																																
86	Sclerolaena cornishiana																																																
86	Lotus cruentus																																																
86	Sclerolaena hostilis																																																
86	Eragrostis exigua																																																
86	Hibiscus aff. coatesii (site 751)																								1																							
86	Acacia cowleana																								1																							
86	Euphorbia aff. australis																													1																		
86	Tephrosia rosea var. glabrior																										1																					
86	Cassia sp. Karajini (MET 10 392)																																																
86	Abutilon sp. B																																																
86	Aristida burbidgeae																																																
86	Cyperus ixiocarpus																																																
86	Scaevola acacioides																																																
86	Clerodendrum floribundum var. angustifolium																																																
86	Sida sp. (Site 1447)																																																
86	Vigna sp. Harding Dam (HD189-12)																																																
86	Corchorus aff. sidoides (HD179-5)																																																
86	Rhynchosia sp. Chichester (MET 15 225)																																																
86	Euphorbia aff. coghlanii (M61-11)																																																
86	Swainsona complanata																																																

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86	Dissocarpus paradoxus																																																
86	Lawrencia viridigrisea																																																
86	Frankenia pauciflora var. pauciflora																																																
86	Hemichroa diandra																																																
86	Halosarcia indica subsp. leiostachya																																																
86	Frankenia ambita																																																
86	Muellerolimon salicorniaceum																																																
86	Avicennia marina																																																
86	Halosarcia pterygosperma subsp. denticulata																																																
86	Eragrostis falcata																																																
86	Neobassia astrocarpa																																																
86	Halosarcia halocnemoides subsp. tenuis																																																
86	Halosarcia pruinosa																																																
86	Sporobolus virginicus																																																
87	Trianthema aff. kimberleyi (MET 15 060)								1				1																																				
87	Goodenia sp. (site 92)																																																
87	Goodenia muelleriana																																			1													
87	Acacia pyrifolia (stout form)																																																
87	Acacia synchronicia	1																																															
87	Sida aff. cardiophylla (site 241)																																																
87	Hibiscus burtonii																																																
87	Cynanchum sp. (MET 15 151)																																																
87	Clerodendrum sp.																																																
87	Cullen leucanthum																																																
87	Euphorbia tannensis subsp. eremophila																																																
87	Acacia sp. (site 1149)																																																
87	Hibiscus aff. coatesii (MET 15 305)																																																
87	Tribulus macrocarpus																																																
87	Bonamia rosea																																													1			
88	Acacia paraneura																																																
89	Eragrostis sp. Mt Montagu (MET 15 246)																						1																										1
89	Schoenus falcatus																																																
89	Fimbristylis rara																												1		1																	1	
89	Acacia aff. morrisonii																																																
89	Fimbristylis cephalophora																																																
89	Bothriochloa bladhii																																																
89	Iseilema vaginiflorum																																																
89	Marsilea exarata																																																
89	Lipocarpha microcephala																																																
89	Amyema benthamii																																																
89	Abutilon lepidioicum																																																
89	Cyperus cunninghamii subsp. cunninghamii																																																
90	Eragrostis leptocarpa																																																
90	Wahlenbergia tumidifructa																																																
91	Sida aff. cardiophylla (M79.27)																																																
91	Yakirra australiensis																																																
92	Hibiscus leptocladus																																																
93	Sida aff. clementii (site 1137)																																																
94	Cullen stipulaceum																																																
95	Euphorbia australis (West Angelas site 1103)													1																	1														1			
95	Polycarpaea longiflora (pale form)														1													1	1						1	1	1									1		
95	Oldenlandia sp. Mt Montagu (MET 15 027)														1												1																					
95	Crotalaria medicaginea		1																									1								1											
95	Trachymene oleracea																														1		1	1														
95	Andrachne decaisnei																																						1			1						
95	Tephrosia rosea var. clementii																						1																						1			
95	Acacia pyrifolia (slender form)			2								1	1		2	1				1																		1										
95	Acacia trachycarpa									1																																							
95	Cullen lachnostachys																																																
95	Tephrosia densa																																																
95	Hibiscus aff. platychlamys (MET 15 067)			1																																		1	1						1				
95	Cassia notabilis									1	1																					1								1									
95	Ptilotus astrolasius	1	1	1		1	1		1																																			1	1	1			
95	Indigofera rugosa																							1																		5	1						

95	Corchorus sp.Millstream(A.S.George 3488)			1			1				1	1		1	1													1													1								
95	Streptoglossa adscendens																																																
95	Swainsona stenodonta	1							1					1									1																										
95	Tribulus platypterus										1																																						
95	Indigastrum parviflorum												1																																				
95	Enneapogon caerulescens var. caerulescens										1	1																																					
95	Ptilotus incanus var. elongatus																																																
95	Mukia aff. maderaspatana (2) (grey scabrid serrate)																																									1							
95	Jacquemontia pannosa																																																
96	Sida aff. echinocarpa (MET 15 350)																												1		1											1							
96	Polycarpaea longiflora																										1	1																					
96	Acacia pyrifolia																																																
96	Indigofera monophylla (grey leaflet form)									1							1	2	1	1	1	1	3	2	4	3	3	3	2	1	1				1				1				3			1			
96	Acacia holosericea																								6	1			1	1			1		1	1			1			1	1						
96	Cymbopogon sp.																									1	1								1								1						
96	Grevillea wickhamii																																																
96	Euphorbia wheeleri																											1	1	1						1										1	1		
96	Acacia pyrifolia (bark not corky)												1																				1		1		1	2		2		4	2						
96	Acacia aff. inaequilatera (MET 15 011)																	1				1										1																	
96	Fimbristylis dichotoma																				1	1										1	1					1						1					
96	Acacia maitlandii																															1																	
96	Abutilon sp. A																																																
96	Triodia brizoides																		2							1																							
96	Eucalyptus leucophloia																			1																													
96	Goodenia cusackiana																																																
96	Triodia wiseana	6	6	6	6	6	6	7	6	6	6	6	6	7	6	6	6	6	6	6	6	6	4	5	5	6	7	6	6	6	6	6	6	5	7	5	7	7	7	6	6	7	7	2	4	5	4	4	4
96	Triodia epactia																																											1			2		
96	Acacia arida		2	1	1	1			1	1	1	1	1		1	2		1	1																														
96	Acacia monticola																																																
96	Acacia tumida																																																
96	Cullen leucochaites																1												1	1																			
96	Corchorus lasiocarpus																																																
96	Salsola kali																																								1								
96	Ptilotus exaltatus																												1											1	1								
96	Tephrosia sp.Cathedral Gorge(F.H.Mollemans 2420)																												1																				
96	Cullen cinereum																																																
96	Lepidium pholidogynum																																																
96	Tephrosia stipuligera																																																
96	Sida sp.A Kimberley Flora(P.A.Fryxell & L.A.Craven 3900)																																																
96	Triumfetta johnstonii																																																
96	Acacia acradenia																																																
96	Heliotropium skeleton																															1																1	
96	Tephrosia uniovulata																																																1
96	Cassia helmsii																					1						1				1																	
97	Polygala aff. isingii	1	1	1							1	1																																					
97	Oldenlandia crouchiana															1																1			1	1													
97	Eriachne pulchella subsp. dominii	1		1				1		1																					1	1	1		1														
97	Cassia luerssenii	1			1		1		1	1								1										1			1			1				1											
97	Polycarpaea corymbosa var. corymbosa						1		1												1	1									1					1									1				
97	Ptilotus calostachyus			1					1	1																1	1								1	1					1								
97	Tribulus suberosus																									1	1			1	1							1										1	
97	Polycarpaea holtzei																				1							1		1		1	1	1	1	1												1	
97	Acacia ancistrocarpa	1				2				1																					3														2				
97	Corchorus laniflorus							1	1	1			1												1	1			1	1					1	1	1					1	1	2	1	4	1		
97	Goodenia stobbsiana																		1						1	1	1	1																					
97	Petalostylis labicheoides													2																																			
97	Dodonaea coriacea																																												1				
97	Cassia pruinosa																									1					1		1		1														
97	Hibiscus aff. coatesii (MET 15 012)	1																																															
97	Acacia tenuissima																																																
97	Sida cardiophylla																					1										1			1											1			
97	Triumfetta maconochieana																																	1															
97	Heliotropium tenuifolium																																																
97	Eragrostis aff. eriopoda																																											1					

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97	Sida echinocarpa																																								1						
97	Corchorus sidoides																																														1
98	Tripogon loliiformis var. (2)																																														
98	Acacia bivenosa (wispy form)																																														
98	Cheilanthes lasiophylla																																														
98	Ptilotus rotundifolius																																														
98	Heliotropium ovalifolium																																														
98	Goodenia triodiophila																																														
98	Olearia stuartii																																														
98	Pterocaulon serrulatum																																														
99	Themeda aff. triandra																																														
99	Capparis lasiantha																																														
99	Acacia pruinocarpa																																														
99	Dodonaea pachyneura																																														
99	Rulingia kempeana																																														
99	Lobelia heterophylla																																														
99	Corymbia deserticola																																														
99	Eremophila latrobei subsp. glabra																																														
100	Crotalaria ramosissima																																														
100	Bonamia media var. ?media																																														
100	Sida aff. fibulifera (M69.12)																																														
100	Setaria surgens																																														
100	Ptilotus polystachyus																																														
100	Abutilon otocarpum																																														
100	Dolichandrone heterophylla																																														
100	Heliotropium foliatum																																														
100	Gomphrena sordida																																														
100	Urochloa holosericea subsp. velutina																																														
100	Cyperus blakeanus																																														

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53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106
WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL
0066	1180	1182	1104	1110	1118	1178	1116	1130	1150	0331	1172	1124	1132	1164	1174	0327	0329	1112	0339	1100	1162	0002	0003	0602	0047	0045	0007	0008	0004	0005	0025	0033	0244	0355	0356	0597	0598	0035	0318	0055	0600	0333	0057	0050	0079	0074	0090	0076	0084	0093	0094	0573	0089
scs	scs	dns	scs	scr	smr	scs	scr	smr	scs	scs	smr	scr	scr	smr	sls	dnr	smr	smr	scr	sms	scr	dn	dn	sms	dn	dn	sls	sl	sl	sls	sls	sls	sls	sls	s	sl	sls	dnr	sms	sls	scs	dns	sls	sl	sls	scs	dn	dn	sls	sls	scr	sl	sls
15	14	16	18	5	9	8	8	8	6	9	15	6	9	8	20	15	13	8	15	15	18	13	19	19	23	17	18	25	21	19	39	40	19	18	14	14	9	14	14	13	14	13	14	30	21	22	17	26	21	18	21	17	23
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
9	9	9	9	10	10	10	10	10	10	11	11	11	11	11	11	12	12	12	12	12	12	13	13	13	13	13	14	14	15	15	15	16	17	17	17	17	17	18	18	18	18	18	18	19	19	20	20	20	20	20	20	20	20
53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106
																1	1	1	1	1	1				1						1			1								1											
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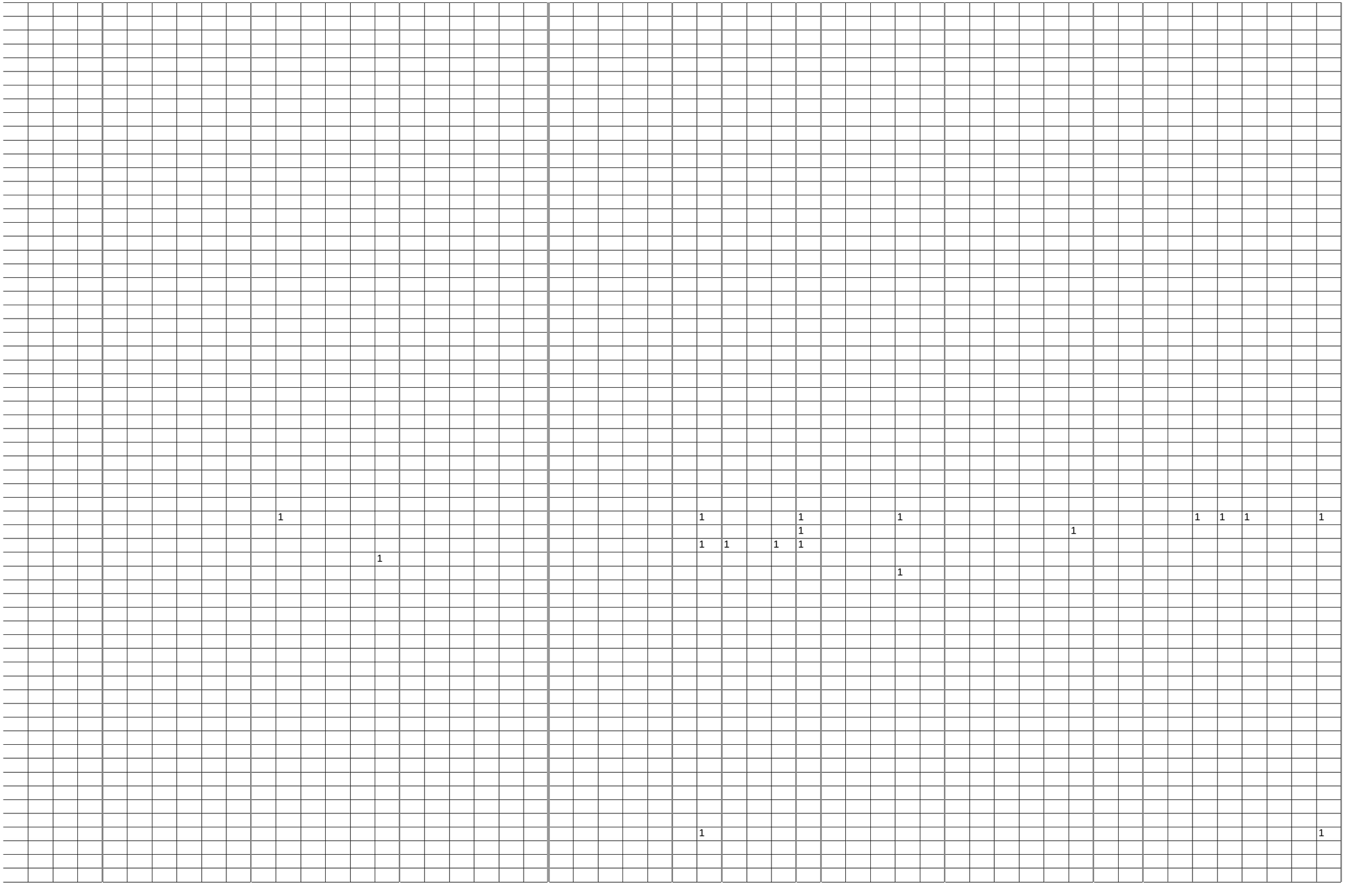

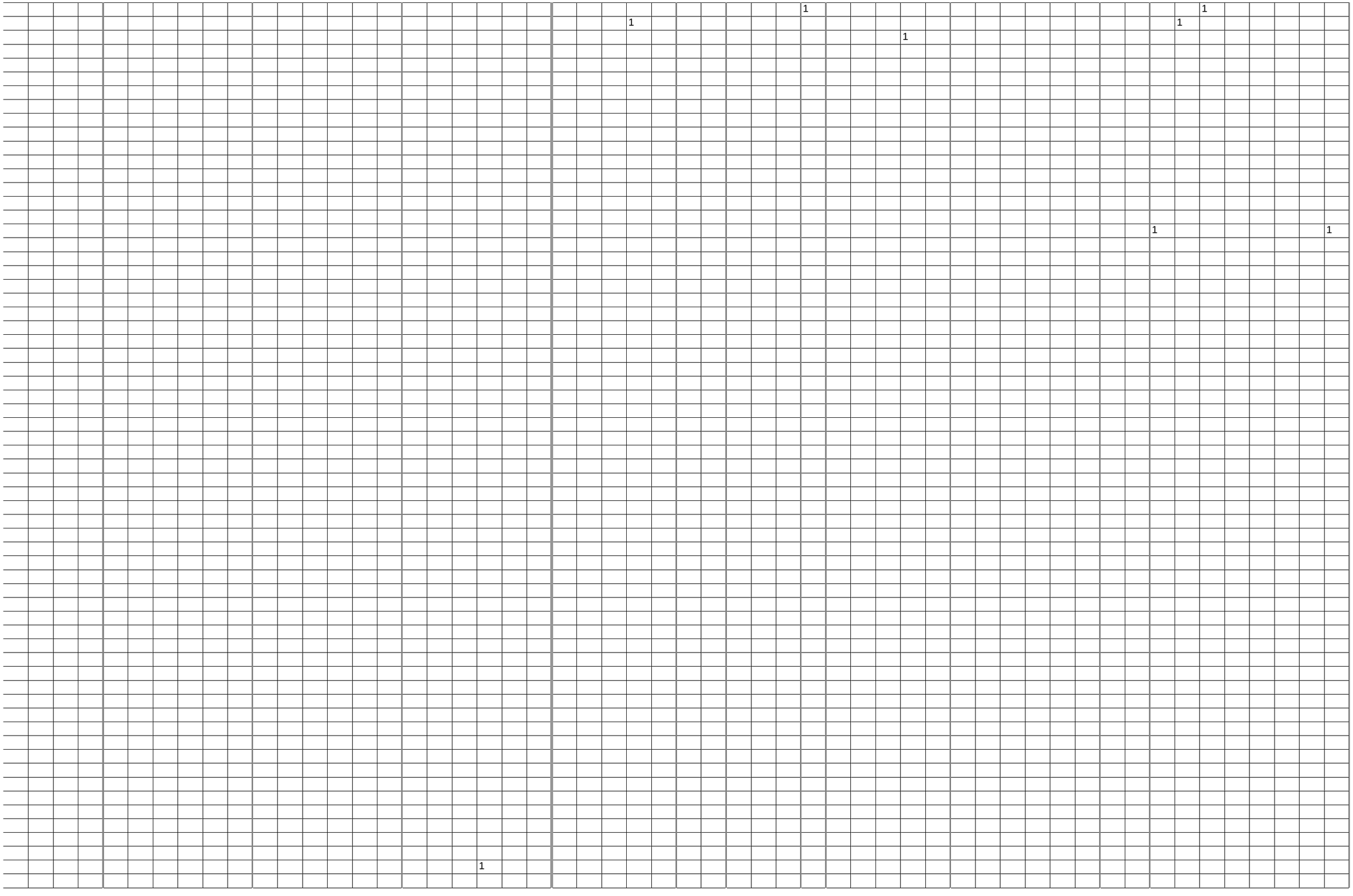
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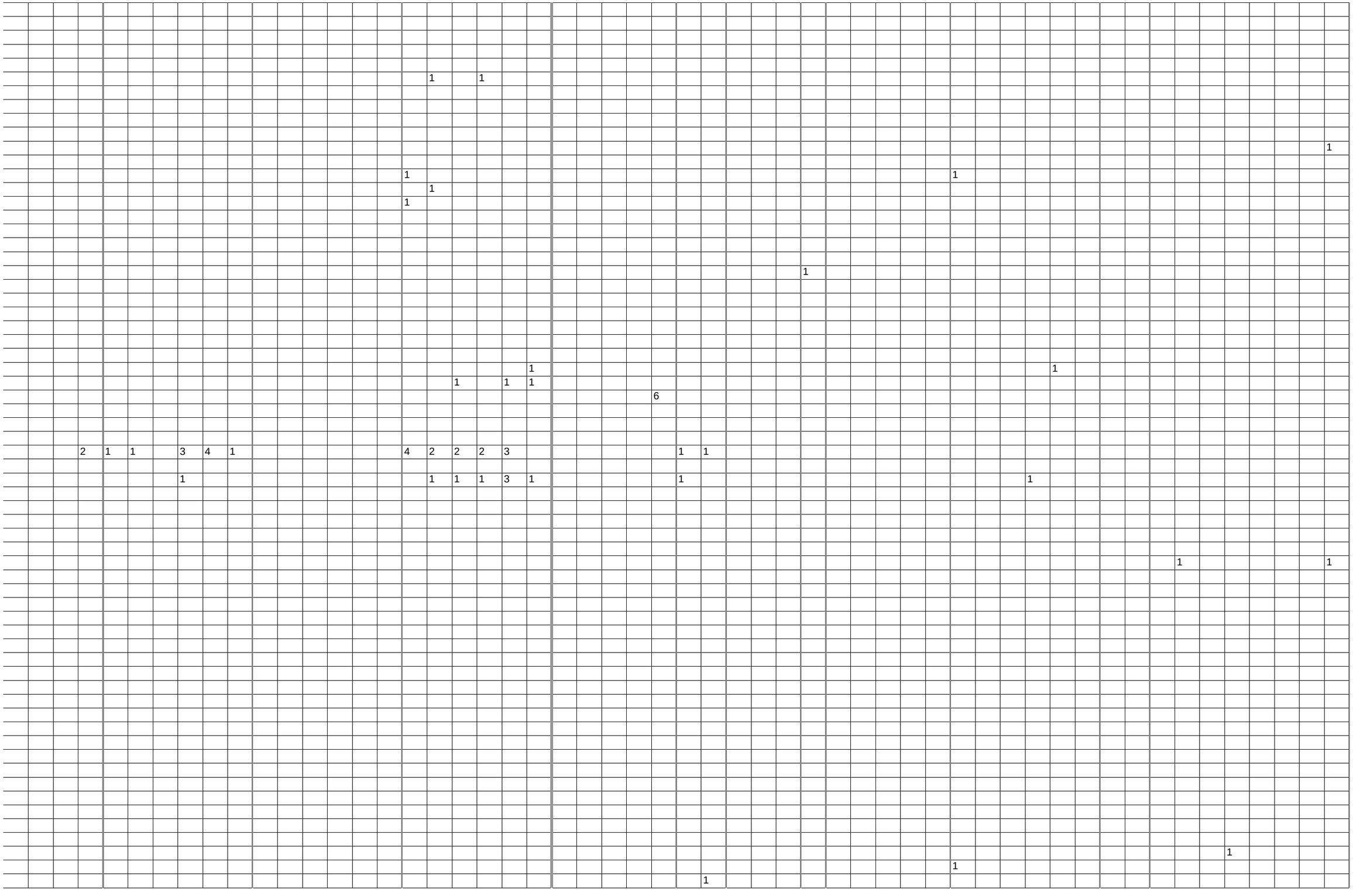

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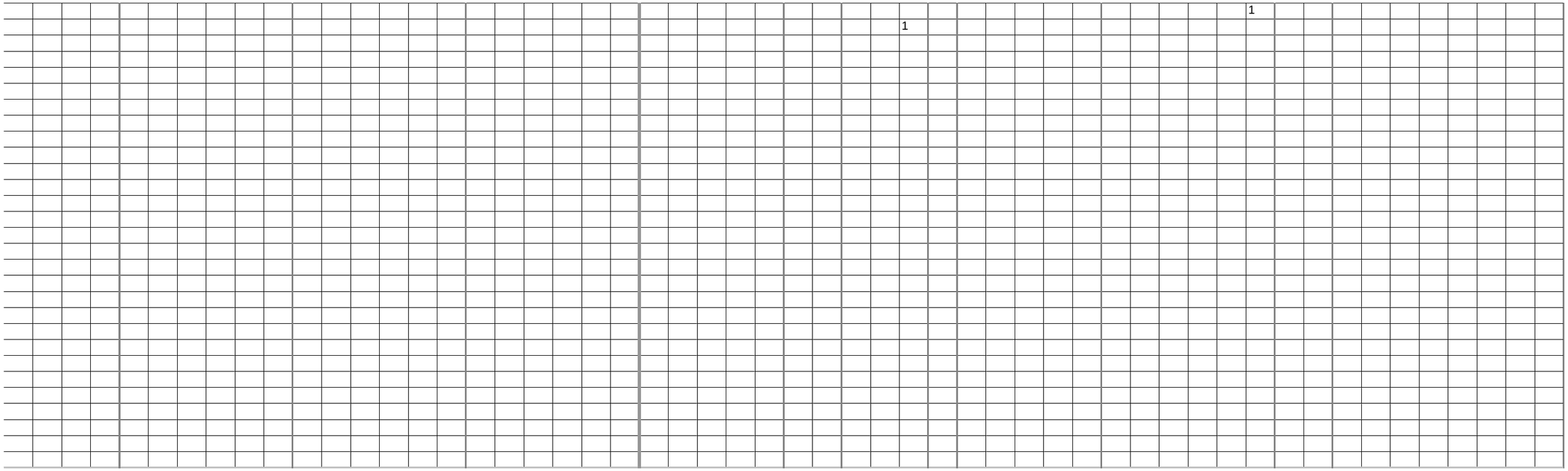
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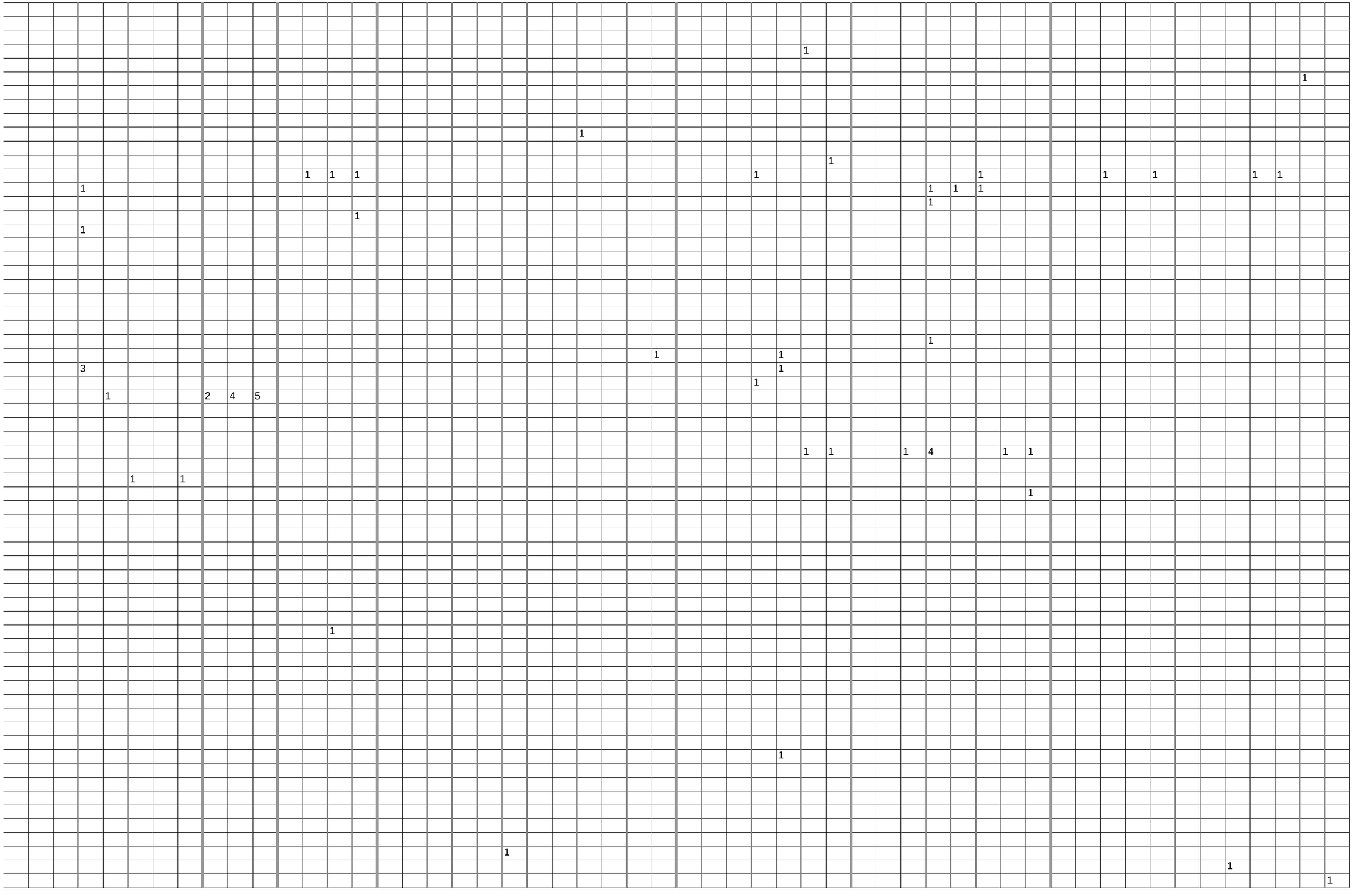

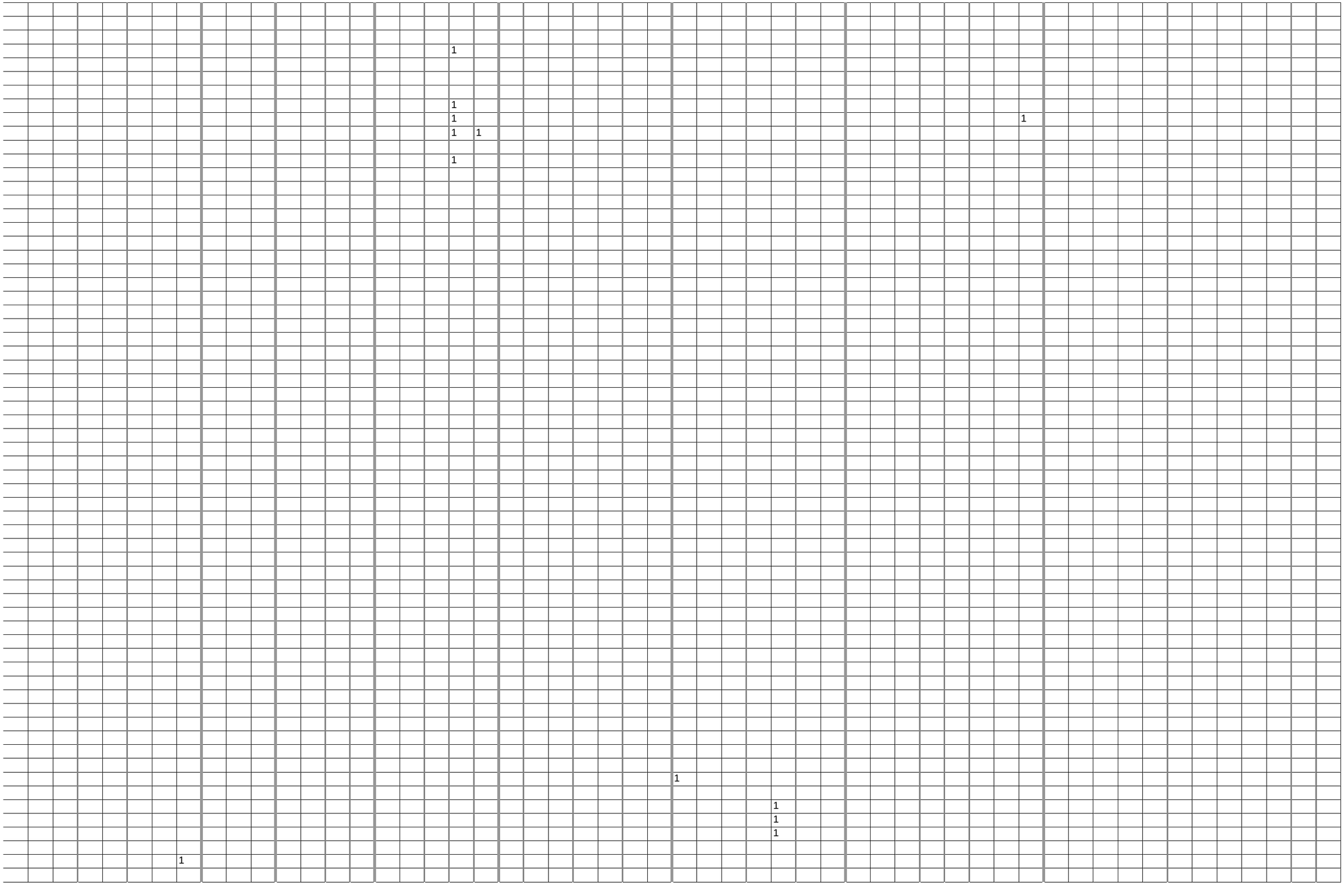
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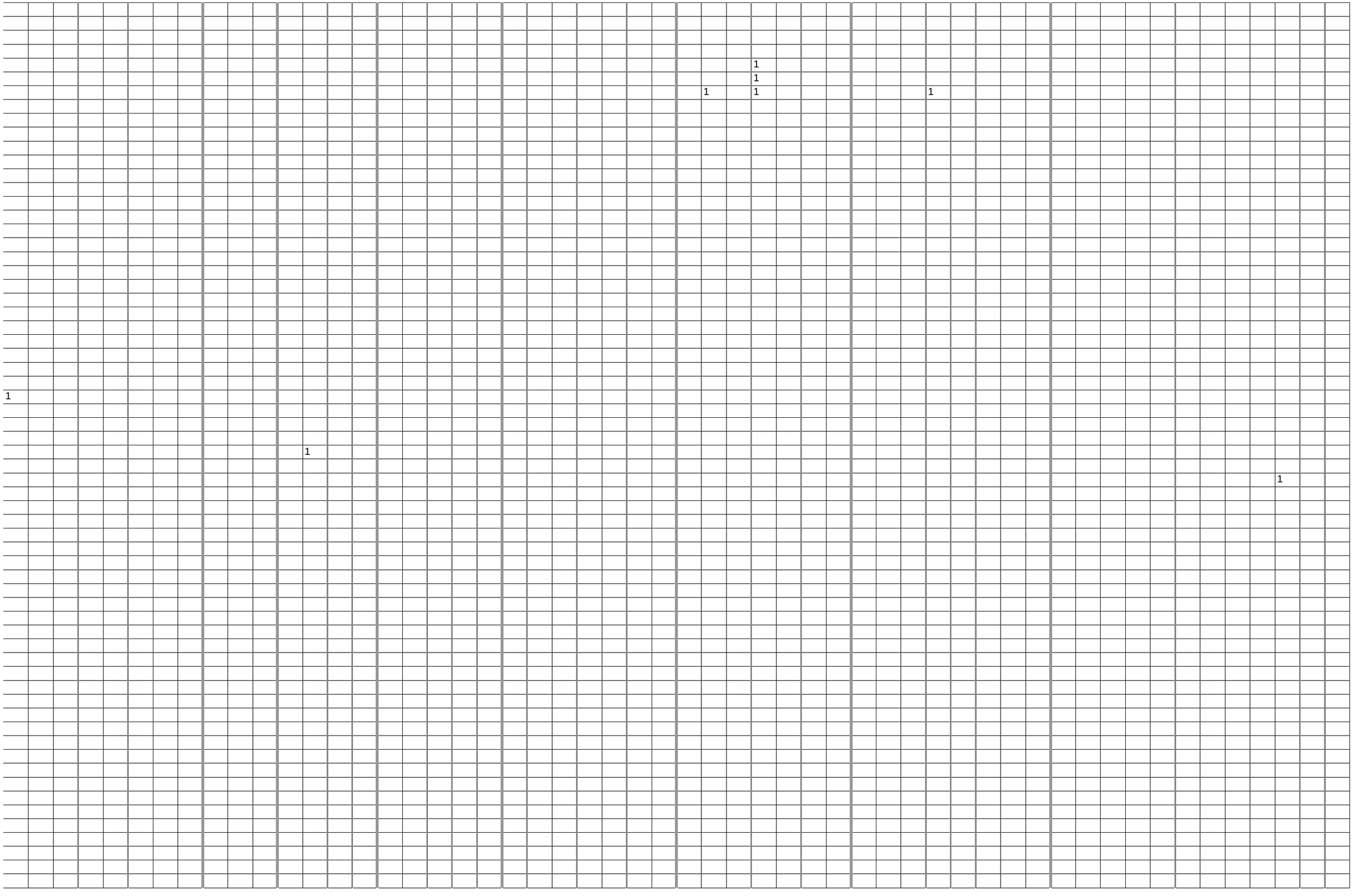
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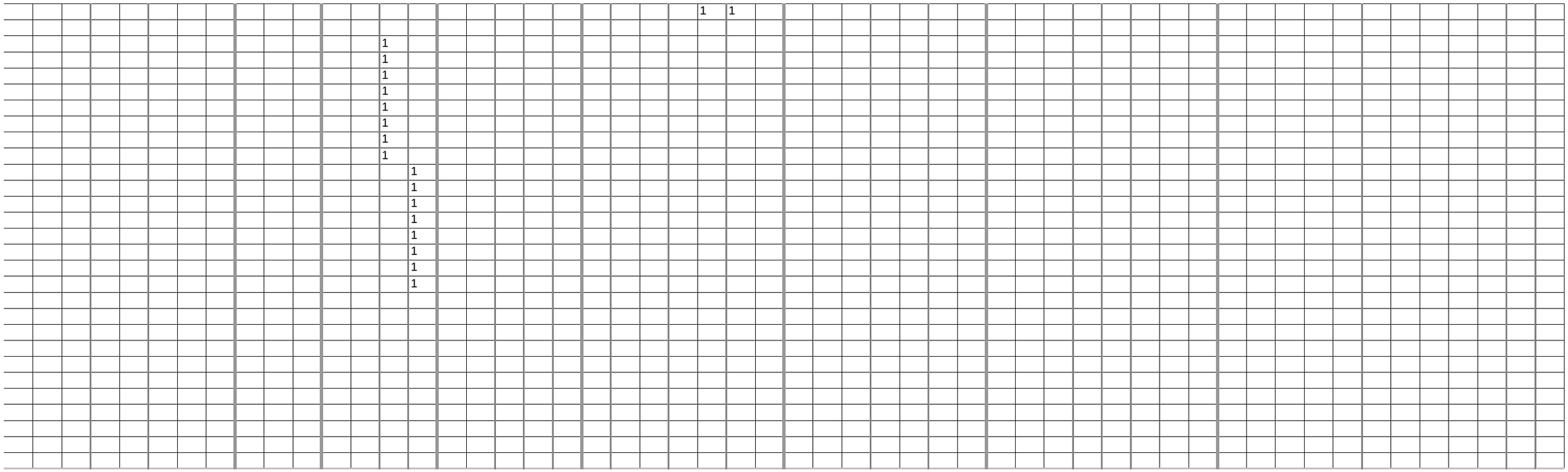

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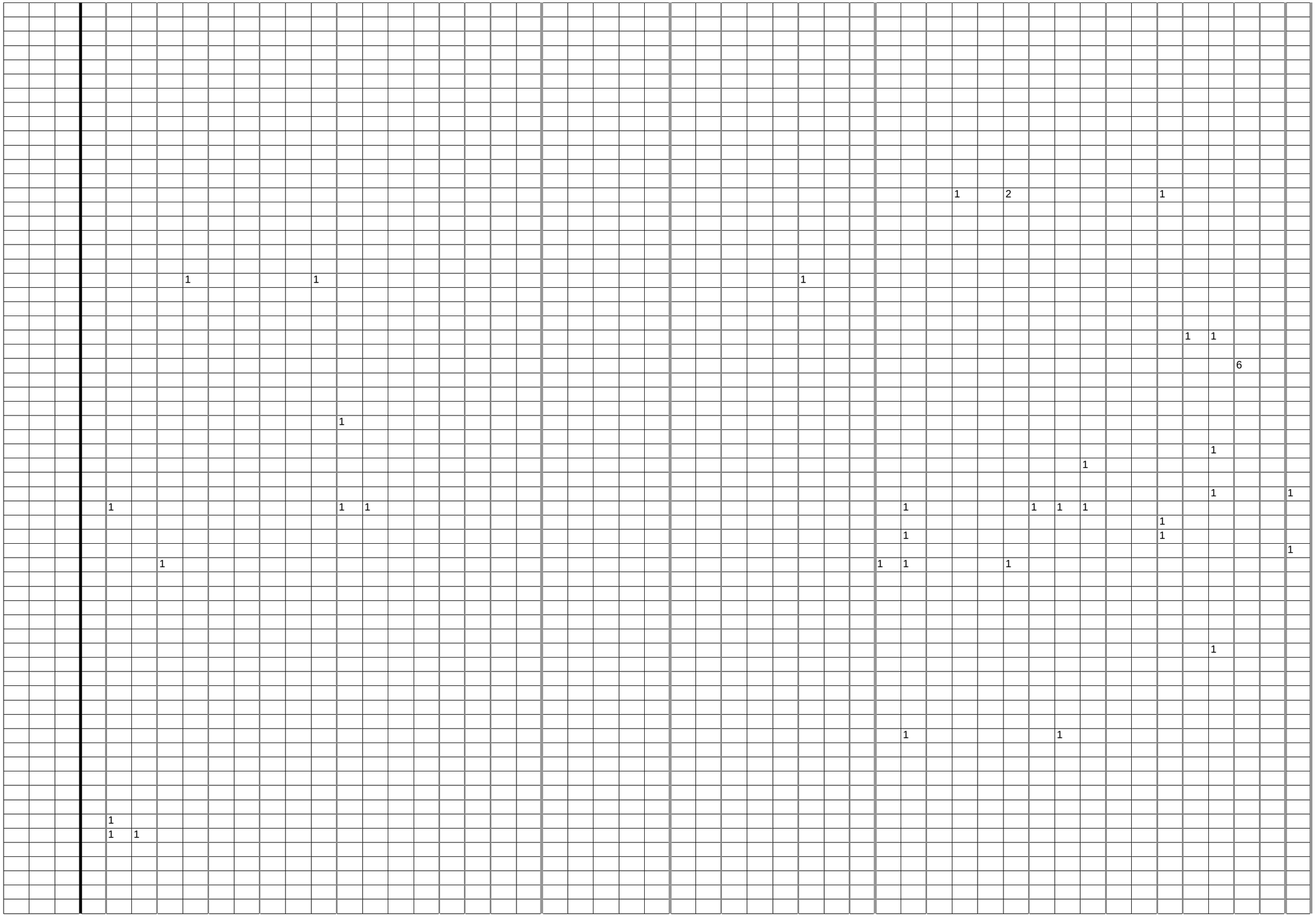

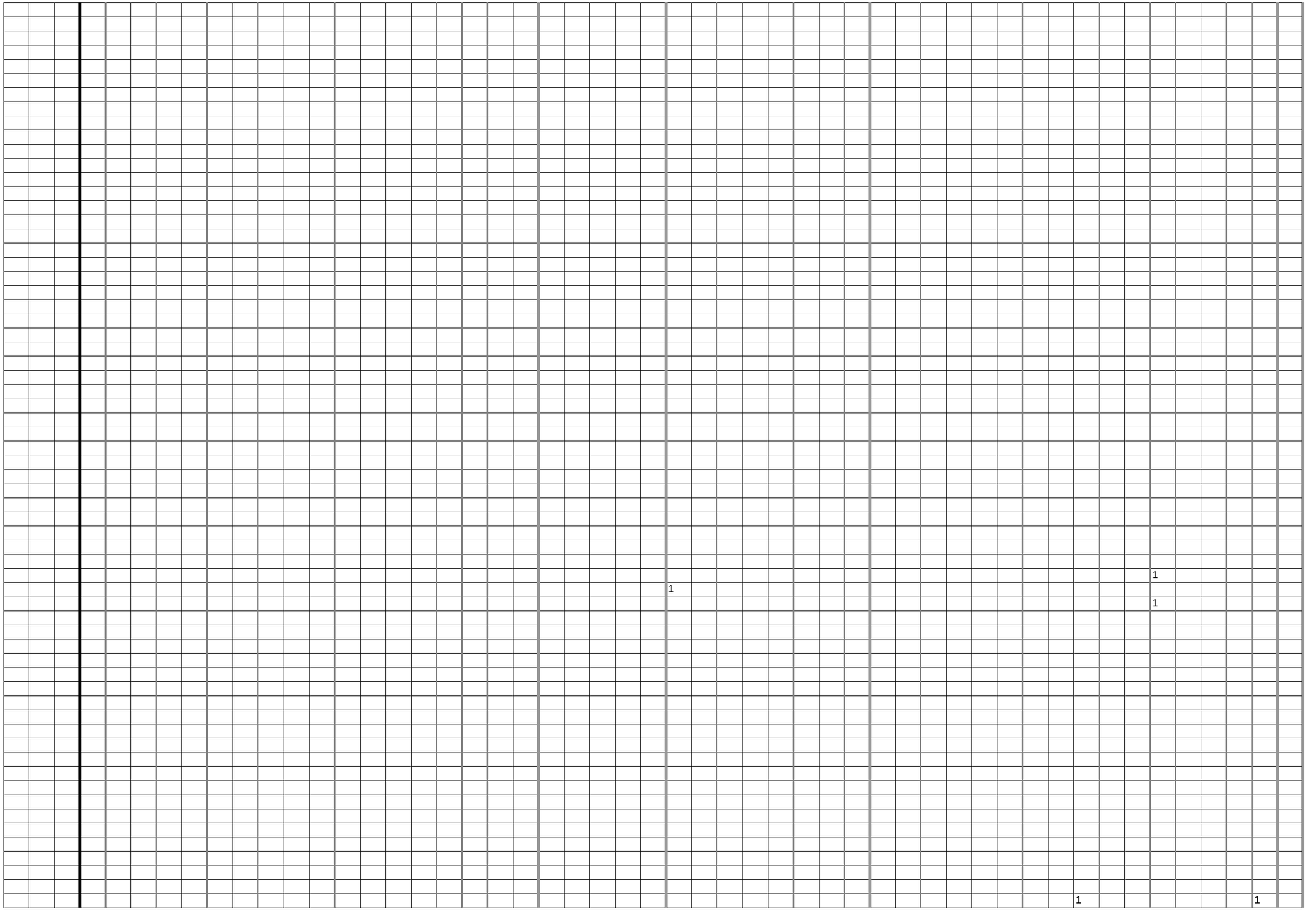
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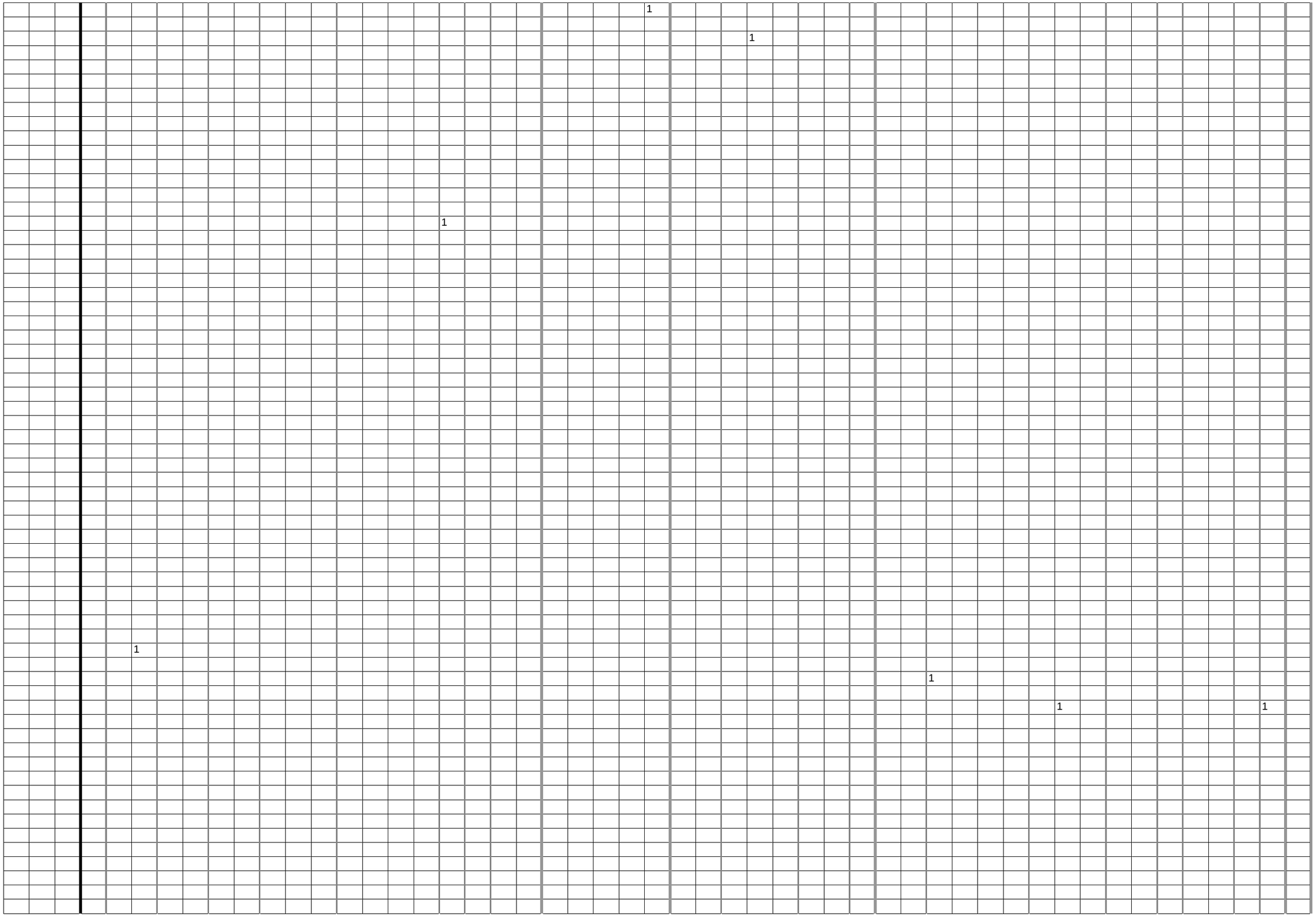
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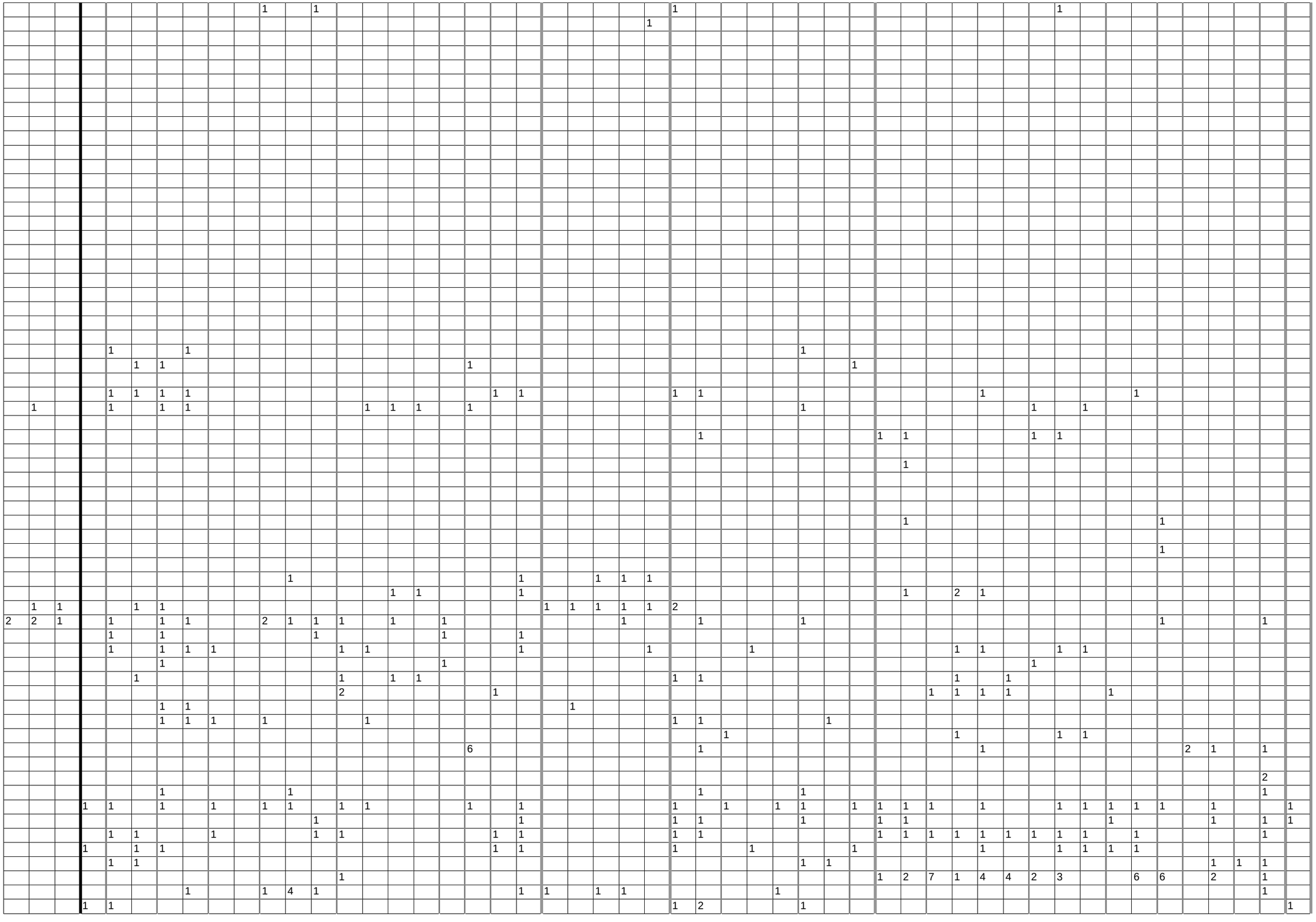

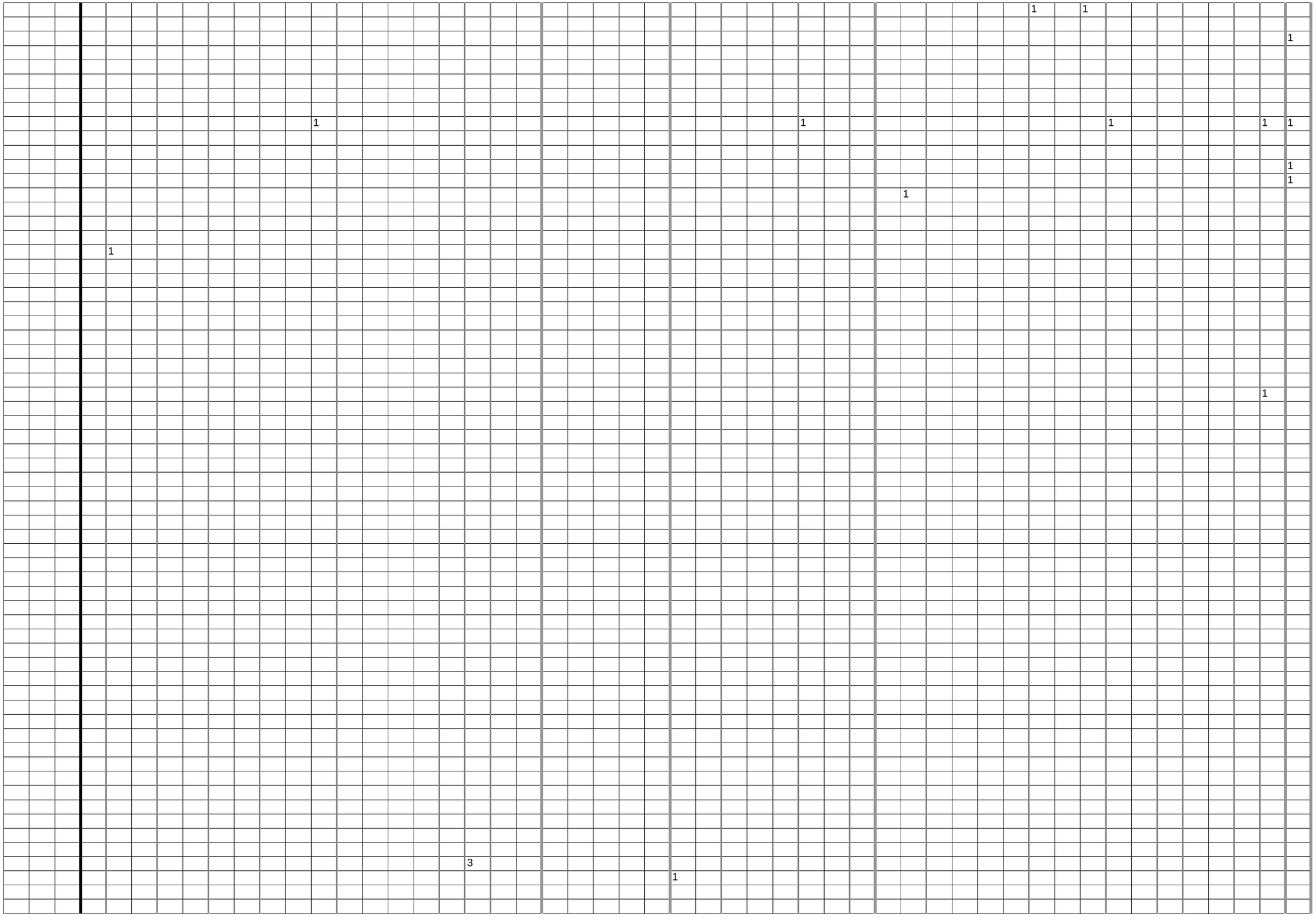

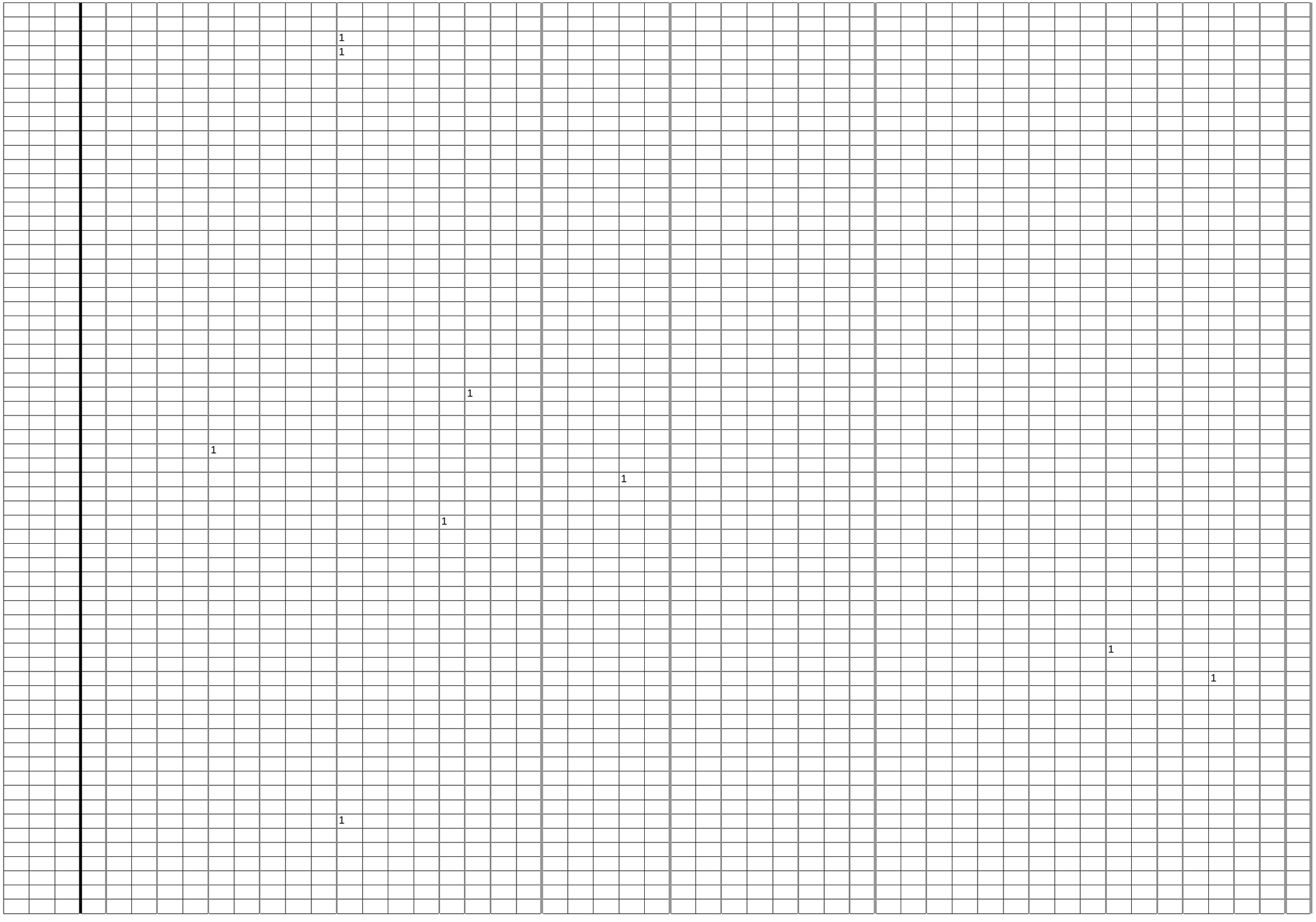

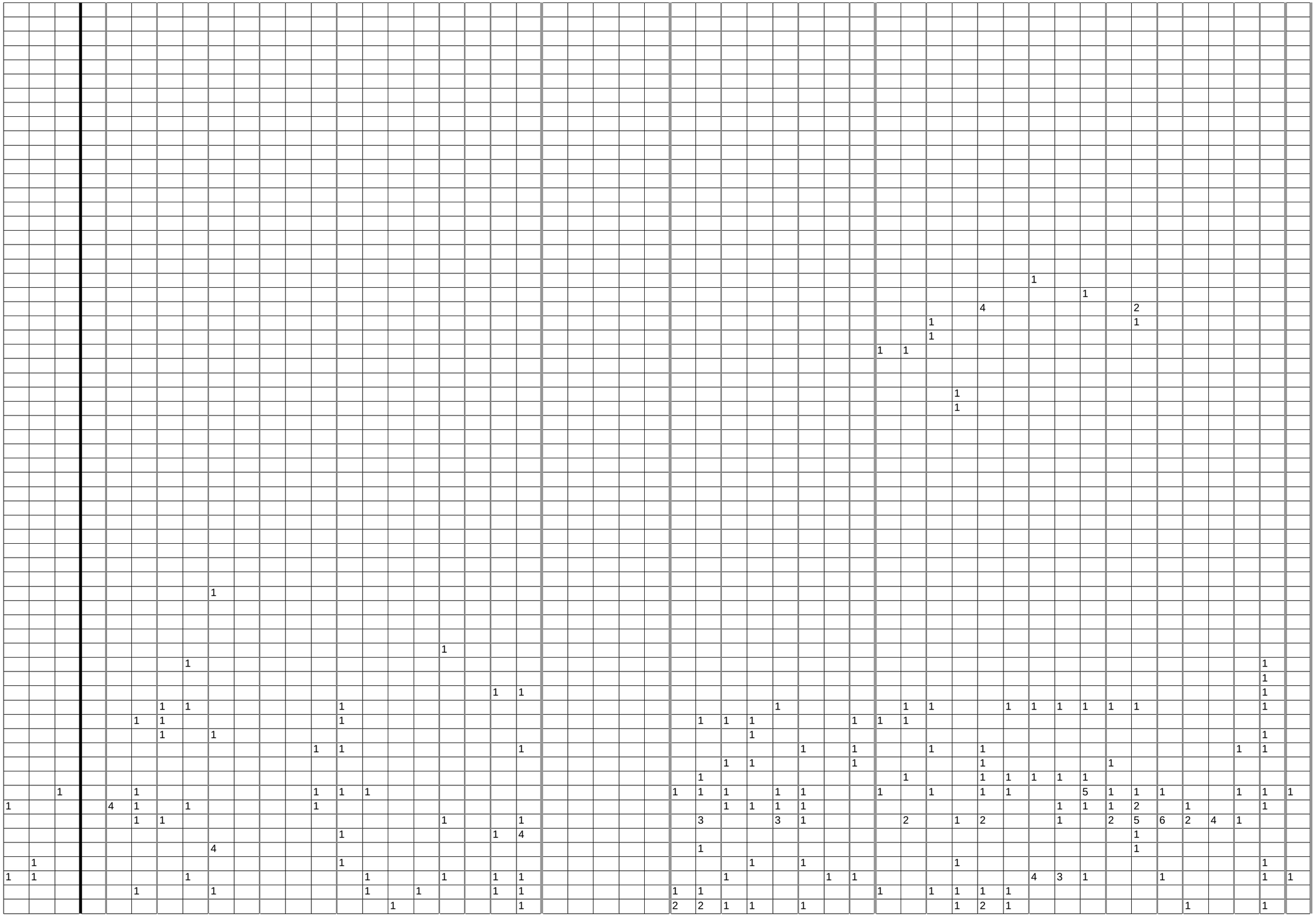

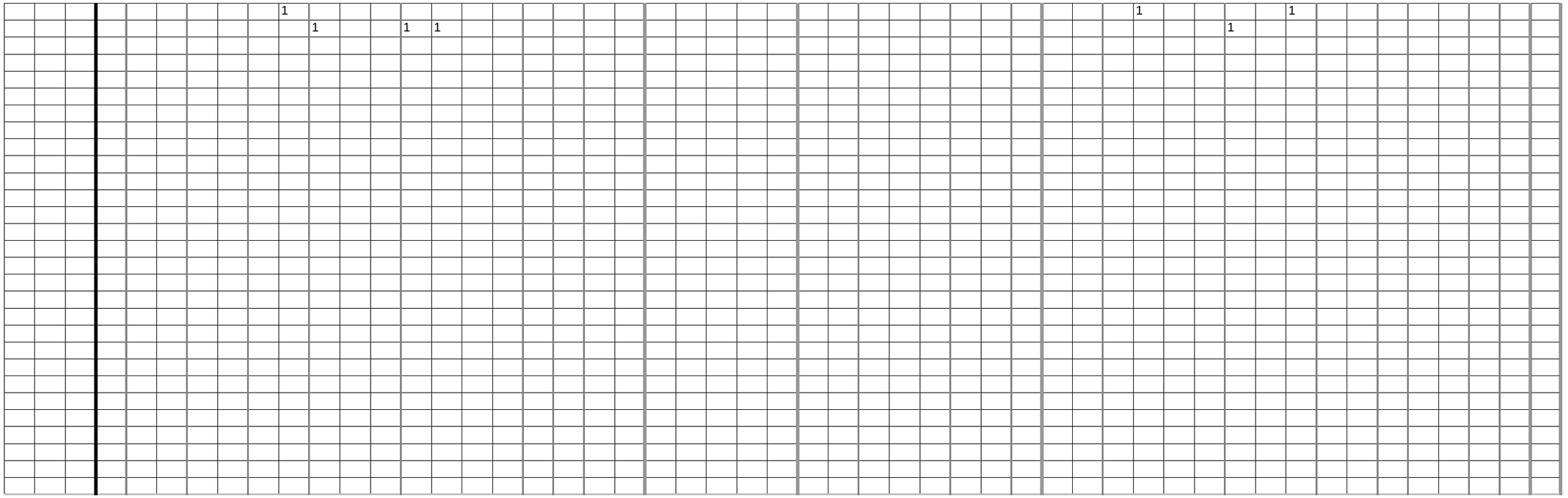

Appendix 3: Sheet 2 Page 1

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2	Site	0036	0021	0023	0348	0349	0018	0037	0020	0075	0563	0088	0086	0245	0575B	1127	1161	1153	0054	0072	0129	0321	0337	1141	0126	1119	1085	1087	1097	1103	0434	0438	0030	0087	1143	1117	1145	B233	0026	0596	0034	0601	0597A
3	Habitat_code	smr	ds	ds	dnr	d	dn	ds	d	ds	ds	ds	d	ds	ds	ds	ds	ds	ds	ds	ds	ds	ds	dnr	ds	ds	ds	ds	ds	ds	ds	ds	d	dap	scs	dn	d	ds	p	scs	sl	sl	sc
6	Coastal																																											
7	# Species	23	13	16	15	19	44	40	42	66	41	40	35	37	39	53	49	65	27	39	27	23	30	19	27	30	24	28	43	36	50	60	11	26	12	32	15	19	7	10	19	17	21
8	Gp50 #	14	14	14	14	14	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	16	17	17	18	18	18	19	20	21	21	21
9	Gp200 #	72	73	73	74	75	76	76	76	77	77	77	78	79	79	79	79	79	80	80	80	81	82	82	83	83	84	84	84	84	85	85	86	87	88	89	89	90	91	92	93	93	93
gp100	SPECIES_TOT_name	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253
1	Euphorbia aff. australis type 2 (prostrate)																																										
1	Euphorbia aff. australis (B170-4)																																										
1	Euphorbia aff. australia (B191)																																										
1	Phyllanthus lacunellus																																										
1	Bonamia pannosa																																										
2	Mukia aff. maderaspatana sp. F																																										
2	Digitaria brownii																																										
2	Bidens bipinnata																																										
2	Mukia aff. maderaspatana sp. C																																										
2	Hibiscus aff. platychlamys (M9.15)																																										
2	Indigofera monophylla (grey/green leaflet form)																																										
2	Hibiscus aff. platychlamys (M39.14)																																										
2	Corchorus aff. walcotti (K.J. Atkins 570)																																										1
2	Corchorus aff. sidoides (KA204-10)																																										
2	Polycarpaea longiflora (White form, M13-7)																																										
2	Solanum gabrielae																																										
2	Solanum lasiophyllum																				1		1	1													1							
2	Eremophila longifolia												1																															
2	Leptopus decaisnei var. decaisnei																																										
2	Euphorbia aff. drummondii (M87)																																										
2	Maireana tomentosa																																										
2	Cassia pruinosa x ?glutinosa																																										
2	Tephrosia aff. supina (M19-3)																																										
2	Indigofera monophylla (Cape Preston form)																																										
2	Tephrosia clementii																																										
2	Sida clementii																																										
2	Sida aff. cardiophylla (site 1086)																																										
2	Hibiscus aff. coatesii (site 664)																																										
3	Sida aff. fibulifera (M37.16)																																										
3	Pterocaulon sphaeranthoides x sphacelatum																																										
3	Porana commixta																																										
4	Hibiscus aff. platychlamys (site 1139)																	1																											
4	Paraneurachne muelleri																														1	1											
4	Isotropis atropurpurea																																										
5	Ptilotus auriculifolius																														1												
5	Tribulus hirsutus																																										
5	Euphorbia boophthona																																										
5	Abutilon trudgenii																																										
5	Waltheria indica																																										
5	Solanum diversiflorum						1			1		1	1				1			1										1	1	1		1									
5	Dysphania rhadinostachya subsp. rhadinostachya							1	1	1							1																											
5	Ptilotus fusiformis var. fusiformis						1																																					
6	Tephrosia aff. densa (B17)																																										
6	Sida rohlenae var. rohlenae																																										
6	Nicotiana benthamiana																																										

Appendix 3: Sheet 2 Page 2

6	Sida sp. 'rugose'																																										
6	Amaranthus interruptus																																										
6	Gomphrena canescens																																										
7	Eremophila forrestii x latrobei																																										
7	Ptilotus clementii																																										
7	Haloragis gossei																																										
8	Cullen pogonocarpum																																										
9	Keraudrenia nephrosperma																																										
9	Heliotropium chrysocarpum																																1										
10	Pluchea ferdinandi-muelleri																																										
11	Euphorbia aff. australis type 1 (erect stems)																																										
11	Zaleya galericulata																																										
11	Cuscuta victoriana																																										
12	Cassia oligophylla x helmsii																																										
13	Euphorbia tannensis subsp. eremophila (Burrup form)																																										
13	Indigofera linnaei																																										
13	Trianthema turgidifolia																																										
13	Salsola tragus																																										
13	Heliotropium cunninghamii																																										
13	Synaptantha tillaeacea var. tillaeacea																																										
13	Eulalia aurea																													1					1								
14	Setaria verticillata																																										
15	Sida aff. fibulifera (M85.15)																																										
15	Themeda triandra																							1																			
15	Acacia sclerosperma																																										
15	Convolvulus erubescens																																										
15	Cenchrus setigerus																																										
15	Prosopis pallida																																										
15	Dactyloctenium radulans						1						1																														
15	Goodenia forrestii																																										
15	Achyranthes aspera																													1													
15	Alternanthera nana																									1	1			1	1												
15	Malvastrum americanum						1			1	1		1		1										1		1	1			1	1										1	
15	Acacia farnesiana																													1	2												
15	Corchorus tridens						1	1		1			1							1																					1	1	1
15	Ipomoea muelleri						1				1			1	1	1		1							1							1	1										1
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16	Boerhavia burbidgeana									1								1																							1		
16	Operculina aequisepala								1	1	1					1																	1										
16	Amaranthus mitchellii																								1																		
17	Panicum decompositum																																										
17	Santalum lanceolatum																																										
17	Abutilon cunninghamii																																										
17	Myoporum montanum																																										
18	Sida aff. fibulifera (MET Site 1346)																																										
19	Abutilon aff. lepidum (1) (MET 15 352)																															1											
19	Bothriochloa ewartiana																																										
20	Heliotropium inexplicitum																																										
21	Amaranthus sp. (M99-1)																																										
21	Alternanthera nodiflora																	1										1															
21	Abutilon amplum																	1																									
21	Erythrina vespertilio								1																																		
21	Passiflora foetida																																										
21	Vigna lanceolata var. lanceolata		1						1																							1											
21	Cucumis melo subsp. agrestis							1				1																															
21	Melochia pyramidata																																										
21	Rostellularia adscendens var. clementii																																										
22	Eragrostis dielsii																																						1				
22	Trianthema triquetra																																										
23	Cyperus bulbosus																																										
23	Samolus repens																																										
23	Dysphania plantaginella													1																													
23	Swainsona kingii																																								1		
24	Marsilea hirsuta															1		1									1	1															

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24	Centipeda minima						1		1							1		1							1		1	1		1													
24	Cyperus iria						1																																				
25	Sida spinosa																														1											1	
26	Boerhavia type 2																																										
26	Amaranthus aff. pallidiflorus (WAS1127)																																										
27	Amaranthus aff. interruptus (MET 16,114)																																										
27	Abutilon aff. fraseri (1)																																										
27	Striga squamigera																																										
28	Boerhavia type 1																																										
28	Cymbopogon bombycinus																																										
28	Glycine canescens																																										
29	Mukia aff. maderaspatana sp. B																																										
29	Tribulus aff. occidentalis (M68.4)																																										
29	Sclerolaena costata																																										
29	Ptilotus helipteroides var. helipteroides																																										
30	Euphorbia aff. australis (M32-9)																																										
30	Dicladanthera forrestii																																										
31	Euphorbia boophthona (Large seed form)																																										
31	Abutilon aff. lepidum (2) (MET 15 970)																																										
31	Cleome oxalidea																																						1				
31	Heliotropium heteranthum																																										
32	Bulbostylis turbinata (form B; M1.16)																																										
32	Atriplex codonocarpa																																										
32	Trianthema aff. triquetra (M3.35)																																										
32	Hibiscus brachysiphonius																																										
33	Sida aff. fibulifera 'var. L'																																										
33	Streptoglossa liatroides																																										
33	Ptilotus murrayi var. murrayi																																										
33	Eragrostis xerophila																																										1
33	Neptunia dimorphantha																																							1	1		
33	Eriachne benthamii																																			2							
33	Xerochloa imberbis																																										
33	Acacia xiphophylla																																						1	1			
33	Fimbristylis depauperata																																										
34	Indigastrum parviflorum (Cape Preston form; M23.12)																																										
34	Aristida contorta																																										
34	Iseilema dolichotrichum																																										
34	Sporobolus australasicus									1			1																					1									
34	Dichanthium sericeum subsp. humilius																														1												
34	Ptilotus aervoides																																										
34	Enneapogon caerulescens var. occidentalis																																										
34	Cassia aff. oligophylla (thinly sericeous)																																										
34	Brachyachne prostrata																																									1	
34	Sarcostemma viminale subsp. australe																																										
34	Cassia glutinosa x luerssenii																																										
34	Tragus australianus																																										
34	Maireana planifolia																																										
34	Sclerolaena uniflora																																										
34	Sclerolaena eriacantha																																										
34	Acacia victoriae																																										
34	Eremophila forrestii subsp. forrestii																																										
35	Enteropogon acicularis																																										
35	Cassia chatelainiana																																										
35	Schoenoplectus laevis																																										
36	Mimulus gracilis																																										
37	Crotalaria dissitiflora subsp. benthamiana																																								3	1	
37	Stemodia kingii																																								1	1	1
37	Aristida latifolia																																							1			
37	Heliotropium conocarpum																																										1
37	Mukia sp.D Flora of Australia(A.A.Mitchell PRP 1121)																																								1	1	1
37	Brachyachne convergens																																										1
37	Desmodium muelleri																																										
37	Boerhavia paludosa																														1													
37	Sida fibulifera																															1								1	1	3	2

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37	Streptoglossa bubakii									1																									1									1			
37	Ptilotus gomphrenoides var. gomphrenoides									1			1																						1										1	1	
37	Rhynchosia sp. Barowanna Hill (MET 15 623)																																										
37	Paspalidium aff. jubiflorum (MET 15 807)																																										
37	Iseilema aff. fragile																																							1			
37	Panicum laevinode																																										
37	Euphorbia sp. Harding (MET 15 683)																																									1	
37	Heliotropium crispatum																																								1	1	
37	Neptunia monosperma																																										1
38	Euphorbia sp. (site 1089)																																										
38	Crotalaria juncea																																										
38	Hibiscus trionum var. vesicarius																																									1	
38	Vittadinia obovata																																										
39	Sida aff. fibulifera (MET Site 1308)																																										
39	Polygala sp. (M21-7)																																										
39	Eragrostis setifolia																																										
39	Oldenlandia sp. 'gilgai'																																										
40	Goodenia aff. pascua																																										
40	Abutilon malvifolium																																										
40	Sclerolaena glabra																																										
40	Cassia hamersleyensis																																										
40	Cullen graveolens																																										
40	Ptilotus carinatus																																										
41	Euphorbia aff. drummondii (MET 15211)																																										
41	Iseilema membranaceum																																										
41	Chloris pectinata																																										
41	Swainsona leeana																																										
42	Heliotropium sp. (M45-21)																																										
42	Blumea tenella																																										
42	Goodenia nuda																																										
43	Polymeria (Site 1365)																																										
43	Abutilon macrum																																										
44	Eriachne aristidea																																										
45	Tripogon loliiformis																																										
45	Cheilanthes sieberi subsp. sieberi																																										
46	Rhynchosia sp. King Bay (B181-13)																																										
46	Sida aff. fibulifera (B181-5B)																																										
46	Solanum esuriale																																										
47	Euphorbia sp. (BPBS10-50)																																										
47	Tephrosia aff clementii (4) (M35-14)																																										
48	Abutilon sp. Fortescue (M. Maier 28A-4)																																										
48	Hibiscus aff. platychlamys (M39-14)																																										
48	Tephrosia leptoclada																																										
48	Zornia albiflora																																										
49	Ptilotus spathulatus																																										
50	Eragrostis eriopoda																																										
50	Eriachne ovata																																										
50	Crotalaria cunninghamii																																										
50	Ipomoea polymorpha																																										
50	Ptilotus axillaris																																										
51	Schizachyrium fragile																																										
51	Desmodium filiforme																																										
51	Zornia muelleriana subsp. congesta																																										
51	Aristida holathera var. holathera																																										
52	Abutilon oxycarpum subsp. prostratum																																										
53	Abutilon aff. dioicum (HD72-14)																																										
53	Eucalyptus xerothermica																																										
53	Amaranthus aff. pallidiflorus (D89)																																										
53	Ficus opposita																																										
53	Phyllanthus ciccoides																																										
53	Ficus virens var. sublanceolata																																										
53	Paspalidium tabulatum (Burrup Form)																																										
53	Dichrostachys spicata																																										
53	Alectryon oleifolius																																										

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53	Abutilon fraseri																																										
53	Rhynchosia sp. Burrup (82-1C)																																										
53	Dicliptera armata																																										
53	Ipomoea costata									1																																	
53	Terminalia supranitifolia																																										
53	Brachychiton acuminatus				1																	1	1		1																		
53	Pittosporum phylliraeoides var. phylliraeoides																																										
53	Clerodendrum tomentosum																																										
53	Rhagodia eremaea																																										
53	Scaevola spinescens																																										
53	Mukia maderaspatana										1																																
53	Tinospora smilacina				1					1			1								1	1	1						1							1							
53	Jasminum didymum subsp. lineare				1																										1												
53	Flueggea virosa subsp. melanthesoides		2	1	1	1	1	1	2			2	1			1	1	1	1	1	1	1	1		2	1	1	1	1	1	1	2				1							
53	Ehretia saligna var. saligna			1												1				1	1			1	1		1		1		1	1	1										
53	Ptilotus obovatus																																										
53	Ficus platypoda																												1														
53	Trichosanthes cucumerina																						1		1								1										
53	Commicarpus australis																																										
53	Capparis spinosa var. nummularia																																										
53	Melhania sp. Burrup																																										
53	Commelina ensifolia																																										
53	Cyperus hesperius				1																																						
53	Plumbago zeylanica																																										
53	Ficus opposita var. indecora																																										
53	Euphorbia sp. (site 1163)																																										
53	Tephrosia sp.B Kimberley Flora(C.A.Gardner 7300)																																										
53	Cynanchum floribundum							1															1	1												1							
53	Triodia angusta (Burrup Form)																									1												1	1				
53	Triodia epactia (Burrup Form)																																										
53	Themeda sp. Burrup (B84)																																										
53	Triodia wiseana (Burrup Form)																																										
53	Cajanus cinereus																									2				1						1							
53	Sorghum plumosum																																										
53	Pentalepis trichodesmoides																																										
53	Stylobasium spathulatum																				1																						
53	Adriana tomentosa																						1											1				1					
53	Rhagodia preissii subsp. obovata																																										
53	Canavalia rosea																																										
53	Abutilon indicum var. australiense																																										
53	Vigna lanceolata var. latifolia																																								2		
54	Melhania sp. Fortescue (M33-22)																																										
54	Sida aff. fibulifera (oblong; MET 15 220)																																										
54	Tribulus occidentalis																																										
54	Gymnanthera cunninghamii																																										
54	Hakea chordophylla														1																												
54	Sida aff. fibulifera (B64-13B)																																										
54	Ptilotus gaudichaudii var. gaudichaudii																																										
54	Pluchea tetranthera																																										
55	Vigna sp. Burrup (B18)																																										
55	Tephrosia aff. supina																																										
55	Striga curviflora																																				1						
55	Triumfetta appendiculata (Burrup Form)																																										
55	Corchorus walcottii																																										
55	Indigofera monophylla (Burrup form)																																										
55	Acacia colei																																										
55	Acacia orthocarpa																																										
55	Acacia pyrifolia (green)																																										
55	Polycarpaea longiflora (red form)																																										
55	Abutilon lepidum																																										
55	Eriachne obtusa																																										
55	Goodenia microptera																																										
55	Streptoglossa decurrens						1																																				
55	Hibiscus sturtii var. campylochlamys																																										

55	Pterocaulon sphaeranthoides																																										
55	Acacia elachantha																																										
55	Amaranthus sp. (D111)																																										
55	Euphorbia sp. (B170-4)																																										
55	Stylosanthes hamata																																										
55	Polymeria calycina																																										
55	Pluchea dentex																																					1					
55	Cullen badocanum																																										
56	Cheilanthes aff. tenuifolia (B18)																																										
56	Evolvulus alsinoides var. decumbens																																										
56	Rhodanthe margarethae																																										
56	Ficus opposita var. aculeata																																										
56	Vittadinia virgata																																										
56	Solanum cleistogamum																																										
57	Ehretia ? (B23-22)																																										
57	Chenopodium pumilio																																										
57	Nicotiana occidentalis subsp. occidentalis																																										
57	Ventilago viminalis																																										
58	Gossypium robinsonii																																										
59	Fimbristylis aff. dichotoma (M75-4)																																										
59	Crotalaria medicaginea (Burrup form; B65-11)																																										
59	Tephrosia aff supina (MET 12,357)																																										
59	Trachymene aff. oleracea (B61)																																										
59	Evolvulus alsinoides var. villosicalyx		1																								1	1				1											
59	Triumfetta clementii																																										
59	Gomphrena cunninghamii																						1																				
59	Acacia pyrifolia (slender, white)																																										
59	Hybanthus aurantiacus		1	1		1						1						1		1									1		1												
59	Bonamia media var. villosa																																										
59	Enchylaena tomentosa																																										
59	Boerhavia coccinea																																										1
59	Abutilon aff. lepidum (4)																																										
59	Paspalidium clementii	1																																						1			
59	Ptilotus exaltatus var. exaltatus																																										
59	Digitaria ctenantha																														1												
59	Euphorbia biconvexa																																										
59	Portulaca oleracea											1																															
59	Alysicarpus rugosus																															1											
59	Portulaca pilosa									1		1							1															1									
59	Polygala sp. (M23-2)																																										
60	Hakea lorea ssp. lorea																																										
60	Acacia inaequilatera	1																																									
60	Cassia glutinosa					1														1	1					1																	
60	Corymbia hamersleyana																									1					3	3		2	1								
60	Bulbostylis barbata									1																																	
60	Mollugo molluginis					1				1												1							1														
60	Tephrosia supina																											1			1	1											
60	Gossypium australe (Burrup Peninsula form)									1											1										1					1							
60	Cassia oligophylla										1					1									1		1			1	1	1		1							1	1	
60	Eriachne mucronata				1															1				2																			
60	Cassia venusta												1				1									1																	
60	Solanum phlomoides									1	1	1																															
60	Rhynchosia cf. minima	1										1	1					1								1	1	1			1												1
60	Indigofera trita																																						1				
60	Chrysopogon fallax																																										
60	Cassytha capillaris					1					1						1						1							1	1	1				1							
60	Cleome viscosa	1		1			1	1	1	1	1	1	1	1	1	1	1	1		1					1				1	1	1	1		1							1		1
60	Phyllanthus maderaspatensis var. angustifolius			1			1	1	1	1	1		1		1	1	1	1		1	1	1	1		1	1	1	1	1	1	1	1									1	1	1
60	Trichodesma zeylanicum						1	1	1	1			1			1	1	1	1		1		1		1	1			1		1			1		1							
60	Solanum horridum									1			1					1		1											1												1
60	Pterocaulon sphacelatum								1								1									1	1	1	1			1				1							
60	Cenchrus ciliaris	1	3	1			4	4	7			4	3	2		1	1	4														1		1									
60	Acacia bivenosa					1						1	1					1		1										1				5	3		2						
60	Cymbopogon ambiguus	2		1													1	1		1	1			1	1	1			1			1											

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60	Acacia coriacea	1	1								2			1	1	1	1	1		1		1	1	2	2	1	1	1	1	3	3	3						1					
60	Grevillea pyramidalis				1																															1			1				
60	Boerhavia gardneri	1									1																		1														
60	Aerva javanica	1	1																													1											
60	Indigofera colutea											1	1	1														1	1		1	1								1			
60	Indigofera linifolia									1		1						1	1							1			1		1												
60	Euphorbia coghlanii			1			1	1	1	1	1			1	1	1	1		1	1	1	1	1		1	1			1		1	1				1							
60	Swainsona formosa									1			1	1		1	1	1	1	1			1				1			1	1												
60	Crotalaria novae-hollandiae subsp. novae-hollandiae												1						1			1														1							
61	Urochloa sp. "glabrous apices"																																										
61	Cullen leucanthum (Cape Preston form; M59.9)																																										
61	Chenopodium melanocarpum																																										
61	Sauropus trachyspermus																																										
62	Cynanchum sp. (1)																																										
62	Argemone ochroleuca subsp. ochroleuca																																										
62	Datura leichhardtii																																										
62	Nicotiana rosulata subsp. rosulata																																										
62	Glinus lotoides													1																													
62	Citrullus colocynthis													1																													
63	Dichanthium fecundum																															1											
63	Ammannia multiflora																																										
64	Najas tenuifolia								1																																		
64	Vallisneria spiralis								1																																		
64	Echinochloa colona								1																																		
64	Eragrostis crateriformis						1																																				
65	Polymeria aff. calycina						1																																				
66	Urochloa gilesii subsp. occidentalis																															1											
67	Perotis rara									1																																	
67	Citrullus lanatus									1																																	
68	Triumfetta appendiculata (Whim Creek form)																1	1			1					1																	
68	Mukia aff. maderaspatana (4) (green not scabrid)						1	1							1	1	1	1			1																						
68	Euphorbia aff. drummondii (MET 15 030)																	1																									
68	Triodia longiceps																1	1																	5		1						
68	Eriachne sp. aff. festucacea													1	1	1	1	1	1								1	2	2	2		3				1							
68	Eleocharis geniculata													1	1	1													1	1								1					
68	Stylidium fluminense						1					1		1	1	1							1	1					1	1						1	1	5					
68	Lotus australis																1	1				1							1														
68	Centaurium spicatum																1	1											1	1					1		1						
68	Lobelia quadrangularis													1			1	1											1							1	1						
69	Peplidium sp. E (Flora of Australia)												1		1			1												1				3				6					
69	Cenchrus echinatus		3				2	1	7			4	3		1			2									3	3						1									
69	Melaleuca linophylla									1	4	7			4								4							1	1	3											
69	Schoenoplectus litoralis														1	1		1																				4					
69	Melaleuca argentea													5				2																									
69	Melaleuca glomerata		6	4		3			1					4	4	4	4	1																									
69	Eucalyptus camaldulensis var. obtusa		3	3				1	4					2	1	3	3	4		3																							
69	Acacia ampliceps													1			1	4																				1					
69	Typha domingensis															1		1																									
69	Fimbristylis elegans						1		1	1		1																						6									
69	Fimbristylis littoralis						1		1													1												6									
69	Eriachne tenuiculmis	1	1	1	1	1		1			1					1	1	1	1	1	1	1				1	3	2	3	3	4	2	1		1	2	2						
69	Cyperus vaginatus	1			1				1	1		1	1	2	1	1	1	2	1	1		1	1	1	1	1	2	1	2	2	1	2				4	3	6					
69	Stemodia grossa						1	1	1	1	1	1	1	1	1	1	1	1	1	1			1	1	1	1	1	1	1	3	1		1	1	1	3		5					
69	Sesbania cannabina	1					1	1	1	1	1		1	1	1	1	1	1	1				1		1		1	1	1	1	1	1		1			1	1					
69	Ammannia baccifera						1	1	1	1	1	1	1	1	1	1	1	1	1	1		1		1	1					1		1		1		1	1	1					
69	Pluchea rubelliflora							1	1	1	1			1	1	1	1	2	1	1	1		1			1	1	1	1	1					1	1	1	4					
69	Cyperus bifax																	1																									
69	Eucalyptus victrix					4					2		2		1	3	2								5	5	4	1		3				1									
69	Terminalia canescens	1			3	1		1		2	2	1			1	1	1		4	4	5	1	3	4	1		3	3	3	4	1	1	1										
69	Amaranthus pallidiflorus			1			1	1	1	1	1	1		1		1	1	1	1		1										1	1											
69	Polymeria ambigua	1						1		1	1	1	1					1											1														
70	Potamogeton tricarinatus								1						1	1		1																									
70	Setaria dielsii							1	1					1				1														1											
70	Basilicum polystachyon	1					1	1	1					1	1			1							1																		

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70	Hibiscus panduriformis						1	1						1	1			1														1											
70	Cyperus difformis						1	1	1	1		1		1	1										1									1		1									
70	Alternanthera angustifolia						1	1	1	1				1																													
70	Ludwigia perennis		1				1	1	1	1				1		1	1								1											1	1						
70	Bergia pedicellaris						1		1	1					1	1									1	1				1		1											
70	Ipomoea plebeia						1	1	1																							1											
71	Eragrostis cumingii						1	1	1		1			1		1	1		1	1		1	1				1	1	1		1	1				1							
71	Eragrostis tenellula						1		1	1	1	1			1	1	1		1	1					1			1			1	1											
71	Goodenia lamprosperma				1	1	1	1	1			1		1		1	1								1					1		1											
71	Cyperus squarrosus						1	1	1	1		1							1	1		1										1		1									
71	Fimbristylis microcarya						1	1	1	1	1	1										1	1									1											
71	Ammannia auriculata							1	1	1		1																	1														
71	Ipomoea coptica							1		1		1																															
71	Flaveria australasica								1	1	1	1			1	1	1	1											1			1						1					
72	Ruppia sp.															1																											
72	Dysphania kalpari															1																											
73	Amyema sp. aff. bifurcata																1																										
73	Calandrinia ptychosperma																1																										
73	Calandrinia quadrivalvis											1			1		1																										
74	Amaranthus aff. mitchellii																	1																									
74	Sonchus oleraceus																	1																									
74	Digitaria ammophila																	1																									
74	Diplachne fusca								1									1																									
74	Cynodon dactylon													1	1			1																									
74	Sesbania formosa													1		1		1																									
74	Pseudognaphalium luteo-album															1	1	1																									
74	Nicotiana occidentalis subsp. obliqua															1	1	1																									
74	Bergia trimera																1	1																									
75	Hibiscus aff. platychlamys (M35.11)																																										
75	Euphorbia sp. (M80-1)																																										
75	Euphorbia schultzii																																										
76	Crotalaria medicaginea (Cape Preston form; M63.12)																																										
76	Atriplex bunburyana																																										
76	Capparis umbonata																																										
77	Cymbopogon obtectus																										1																
77	Acacia marramamba																																										
77	Stackhousia muricata																																										
77	Diplopeltis eriocarpa																																										
77	Ptilotus calostachyus var. calostachyus																																										
78	Triumfetta cf. propinqua (B13-13)																																										
78	Tephrosia aff. densa (B16-22)																																										
78	Tephrosia aff. supina (HD133-20)																																										
78	Crotalaria trifoliastrum																																										
78	Hibiscus sturtii var. platychlamys																																										
78	Cullen pustulatum																																										
78	Acacia colei x elachantha																																										
78	Sida aff. cardiophylla (B22-37)																																										
78	Euphorbia sp. (B34-11)																																										
78	Tephrosia aff. clementii (5)B184																																										
78	Acacia stellaticeps																																										
78	Euphorbia drummondii																																										
79	Leptochloa fusca subsp. fusca																																										
79	Minuria integerrima																																										
79	Sida aff. fibulifera (B235-7)																																										
79	Dentella asperata																																										
80	Sida aff. fibulifera (D109)																																										
80	Enneapogon polyphyllus																																										
81	Amaranthus aff. pallidiflorus (WC148-11)																																										
81	Polycarpaea longiflora (Whim Creek form, WC147-7)																																										
81	Solanum petrophilum																																										
81	Gossypium australe (Whim Creek form)																																										
81	Carissa lanceolata																																										
81	Paspalidium tabulatum (Whim Creek form)																																										
81	Aristida nitidula																																										

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81	Triodia angusta																																										
81	Hibiscus goldsworthii																																										
82	Sida sp. Wittenoom (W.R. Barker 1962)																																										
82	Eremophila cuneifolia																																										
83	Rhynchosia minima																																										
83	Enneapogon intermedius																																										
83	Hibiscus coatesii																																										
84	Sida aff. fibulifera (M100.22)																																										
84	Euphorbia sp. (M100-4)																																										
84	Amaranthus sp. (M100-2)																																										
84	Triraphis mollis																																										
85	Euphorbia sp. (G133-2)																																										
85	Scaevola anchusifolia																																										
85	Euphorbia sp. (BPBS2)																																										
85	Ptilotus villosiflorus																																										
85	Spinifex longifolius																																										
85	Scaevola crassifolia																																										
85	Scaevola cunninghamii																																										
85	Cleome sp. Burrup (B159-5)																																										
85	Maireana melanocoma																																										
85	Whiteochloa airoides																																										
85	Euphorbia sp. (D105-1)																																										
85	Atriplex isatidea																																										
85	Swainsona pterostylis																																				1					
85	Threlkeldia diffusa																																										
85	Sesuvium portulacastrum																																										
86	Abutilon aff. lepidum (5)																																										
86	Indigastrum parviflorum (Whim Creek form; W138-3)																																										
86	Tephrosia aff. clementii (2)																																										
86	Triodia aff. basedowii																																										
86	Eriachne helmsii																																										
86	Corchorus parviflorus																																										
86	Euphorbia aff. australis var. 1 (MET 12 337)																																										
86	Diplatia grandibractea																																										
86	Sida aff. fibulifera (felty edges; site 655)																																										
86	Acacia sphaerostachya																																										
86	Trianthema pilosa																																										
86	Mukia aff. maderaspatana (1) (grey scabrid rounded)																																										
86	Melhania oblongifolia																																										
86	Abutilon cryptopetalum																																										
86	Boerhavia repleta																																										
86	Cucumis melo																																										
86	Scaevola scabrida																																										
86	Hibiscus platychlamys					1																																					
86	Sclerolaena cornishiana																																										
86	Lotus cruentus																																										
86	Sclerolaena hostilis																																										
86	Eragrostis exigua																																										
86	Hibiscus aff. coatesii (site 751)																																										
86	Acacia cowleana																																										
86	Euphorbia aff. australis																																										
86	Tephrosia rosea var. glabrior																																										
86	Cassia sp. Karajini (MET 10 392)																																										
86	Abutilon sp. B																							1																			
86	Aristida burbidgeae																																										
86	Cyperus ixiocarpus																																										
86	Scaevola acacioides																																										
86	Clerodendrum floribundum var. angustifolium																																										
86	Sida sp. (Site 1447)																																										
86	Vigna sp. Harding Dam (HD189-12)																																										
86	Corchorus aff. sidoides (HD179-5)																																										
86	Rhynchosia sp. Chichester (MET 15 225)																																										
86	Euphorbia aff. coghlanii (M61-11)																																										
86	Swainsona complanata																																										

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86	Dissocarpus paradoxus																																										
86	Lawrencia viridigrisea																																										
86	Frankenia pauciflora var. pauciflora																																										
86	Hemichroa diandra																																										
86	Halosarcia indica subsp. leiostachya																																										
86	Frankenia ambita																																										
86	Muellerolimon salicorniaceum																																										
86	Avicennia marina																																										
86	Halosarcia pterygosperma subsp. denticulata																																										
86	Eragrostis falcata																																										
86	Neobassia astrocarpa																																										
86	Halosarcia halocnemoides subsp. tenuis																																										
86	Halosarcia pruinosa																																										
86	Sporobolus virginicus																																										
87	Trianthema aff. kimberleyi (MET 15 060)																																										
87	Goodenia sp. (site 92)																																										
87	Goodenia muelleriana																																										
87	Acacia pyrifolia (stout form)																				1																						
87	Acacia synchronicia																																										
87	Sida aff. cardiophylla (site 241)																																										
87	Hibiscus burtonii																																										
87	Cynanchum sp. (MET 15 151)																																										
87	Clerodendrum sp.				1																																						
87	Cullen leucanthum																																										
87	Euphorbia tannensis subsp. eremophila																																										
87	Acacia sp. (site 1149)																																										
87	Hibiscus aff. coatesii (MET 15 305)																																										
87	Tribulus macrocarpus																																										
87	Bonamia rosea																																										
88	Acacia paraneura																																										
89	Eragrostis sp. Mt Montagu (MET 15 246)																						1															6					
89	Schoenus falcatus																																			3	1	7					
89	Fimbristylis rara						1		1												1							1					1				6						
89	Acacia aff. morrisonii																																			1							
89	Fimbristylis cephalophora																												1						1	1	1						
89	Bothriochloa bladhii																															1					4						
89	Iseilema vaginiflorum																											2															
89	Marsilea exarata							1																									1										
89	Lipocarpha microcephala																					1	1										1										
89	Amyema benthamii															1					1																						
89	Abutilon lepidioicum																				1				1																		
89	Cyperus cunninghamii subsp. cunninghamii														1					1	1																						
90	Eragrostis leptocarpa										1																																
90	Wahlenbergia tumidifructa										1																																
91	Sida aff. cardiophylla (M79.27)																																										
91	Yakirra australiensis																																										
92	Hibiscus leptocladus																																										
93	Sida aff. clementii (site 1137)																																										
94	Cullen stipulaceum																																										
95	Euphorbia australis (West Angelas site 1103)	1								1	1	1						1	1	1										1													
95	Polycarpaea longiflora (pale form)	1					1			1	1				1	1	1			1		1				1			1														
95	Oldenlandia sp. Mt Montagu (MET 15 027)									1	1									1									1	1									1				
95	Crotalaria medicaginea						1	1		1	1	1			1				1	1		1	1						1		1	1										1	
95	Trachymene oleracea	1								1	1	1							1				1			1				1						1							
95	Andrachne decaisnei	1								1			1			1			1											1		1		1							1		
95	Tephrosia rosea var. clementii						1	1			1	1	3			1	1	1		1		1				1			1	1	1					1							
95	Acacia pyrifolia (slender form)					1					1	1		1	1	1	1	1		1	1		1					1	1	1	2	1		1	1								1
95	Acacia trachycarpa			2			1			1	2	2	1	1	2	1	1																										
95	Cullen lachnostachys									1											1																						
95	Tephrosia densa			1						1										1																							
95	Hibiscus aff. platychlamys (MET 15 067)									1																																	1
95	Cassia notabilis									1	1		1					1	1															1							1	1	1
95	Ptilotus astrolasius			1																																							
95	Indigofera rugosa																														1												

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95	Corchorus sp.Millstream(A.S.George 3488)									1	1	1	1																														
95	Streptoglossa adscendens																																								1		1
95	Swainsona stenodonta						1																																				
95	Tribulus platypterus									1																																	
95	Indigastrum parviflorum									1									1	1																						1	1
95	Enneapogon caerulescens var. caerulescens																																							1			
95	Ptilotus incanus var. elongatus																																1										
95	Mukia aff. maderaspatana (2) (grey scabrid serrate)									1																				1	1												
95	Jacquemontia pannosa	1			1	1														1						1			1	1	1					1							
96	Sida aff. echinocarpa (MET 15 350)																																										
96	Polycarpaea longiflora																																										
96	Acacia pyrifolia																																										
96	Indigofera monophylla (grey leaflet form)					1				1																1					1	1											
96	Acacia holosericea																									1	1	1	1		2	1				1							
96	Cymbopogon sp.				1						1																				1												
96	Grevillea wickhamii															1				1																							
96	Euphorbia wheeleri																				1								1														
96	Acacia pyrifolia (bark not corky)																																										
96	Acacia aff. inaequilatera (MET 15 011)																																										
96	Fimbristylis dichotoma																																										
96	Acacia maitlandii					1																																					
96	Abutilon sp. A																																										
96	Triodia brizoides																																										
96	Eucalyptus leucophloia																																										
96	Goodenia cusackiana																																										
96	Triodia wiseana	3														1							4	4		2			3		4	3		1	1						4		
96	Triodia epactia	1	2	3	3	4	4	1		3	4	3	2	1	2	2	2	1	4	3	3			2	3																		
96	Acacia arida							1		1	2	1				1			1	1	1	1	1												1								
96	Acacia monticola					1																																					
96	Acacia tumida					1																				1					4	3				1							
96	Cullen leucochaites																																										
96	Corchorus lasiocarpus																																										
96	Salsola kali																																							1	1		1
96	Ptilotus exaltatus																																										
96	Tephrosia sp.Cathedral Gorge(F.H.Mollemans 2420)																																										
96	Cullen cinereum																																										
96	Lepidium pholidogynum																																										
96	Tephrosia stipuligera																																										
96	Sida sp.A Kimberley Flora(P.A.Fryxell & L.A.Craven 3900)																																										
96	Triumfetta johnstonii																																										
96	Acacia acradenia																																										
96	Heliotropium skeleton																																										
96	Tephrosia uniovulata																																										
96	Cassia helmsii																																										
97	Polygala aff. isingii																																										
97	Oldenlandia crouchiana									1																																	
97	Eriachne pulchella subsp. dominii																																										
97	Cassia luerssenii																																										
97	Polycarpaea corymbosa var. corymbosa									1																																	
97	Ptilotus calostachyus																																										
97	Tribulus suberosus																																										
97	Polycarpaea holtzei																																										
97	Acacia ancistrocarpa	1																					1																				
97	Corchorus laniflorus																							1		1																	
97	Goodenia stobbsiana																																										
97	Petalostylis labicheoides																			1																							
97	Dodonaea coriacea																													1													
97	Cassia pruinosa																																										
97	Hibiscus aff. coatesii (MET 15 012)																																										
97	Acacia tenuissima																																										
97	Sida cardiophylla																																										
97	Triumfetta maconochieana																																										
97	Heliotropium tenuifolium																																		1								
97	Eragrostis aff. eriopoda																																										

97	Sida echinocarpa
97	Corchorus sidoides
98	Tripogon loliiformis var. (2)
98	Acacia bivenosa (wispy form)
98	Cheilanthes lasiophylla
98	Ptilotus rotundifolius
98	Heliotropium ovalifolium
98	Goodenia triodiophila
98	Olearia stuartii
98	Pterocaulon serrulatum
99	Themeda aff. triandra
99	Capparis lasiantha
99	Acacia pruinocarpa
99	Dodonaea pachyneura
99	Rulingia kempeana
99	Lobelia heterophylla
99	Corymbia deserticola
99	Eremophila latrobei subsp. glabra
100	Crotalaria ramosissima
100	Bonamia media var. ?media
100	Sida aff. fibulifera (M69.12)
100	Setaria surgens
100	Ptilotus polystachyus
100	Abutilon otocarpum
100	Dolichandrone heterophylla
100	Heliotropium foliatum
100	Gomphrena sordida
100	Urochloa holosericea subsp. velutina
100	Cyperus blakeanus

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254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307
WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	WANGEL	CAPPRE	CAPPRE	CAPPRE	CAPPRE	ANGELISL	GIDISL	CAPPRE	BURPEN	BURPEN	DOLISL	DOLISL	GIDISL	DOLISL	CAPPRE	CAPPRE	CAPPRE	DOLISL	DOLISL	DOLISL	DOLISL	DOLISL	DOLISL	ANGELISL	CAPPRE	CAPPRE	CAPPRE	CAPPRE	CAPPRE	CAPPRE	CAPPRE	CAPPRE	CAPPRE	CAPPRE	CAPPRE	CAPPRE	CAPPRE	CAPPRE	CAPPRE	BURPEN	KARHIL	CAPPRE	CAPPRE
0081B	0564C	0595A	0598A	0431	0463	0464	1093	0441	0442	1089	1151	M113	M036	M074	M061	A129	G133	M068	B159	B077	D097	D111	G132	D123	M070	M072	M100	D118	D104	D105	D121	D122	D112	A141	M063	M069	M005	M029	M033	M043	M032	M039	M089	M083	M025	M022	M045	M067	M093	B049	KH210	M041	M013
sc	sl	scs	sl	scs	scs	scs	scs	scs	scs	scs	d	lim	li	li	li	du	du	du	du	p	p	du	p	du	du	dus	du	sl	du	du	du	du	dub	sl	du	du	dns	dns	dns	dn	dn	d	dn	dn	dns	dn	dn	dn	d	rp	smr	rp	rp
												y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y		y	y	y	y	y		y	y																		
12	8	12	6	13	18	19	25	13	18	42	13	8	14	13	19	18	12	14	13	13	12	15	18	24	16	21	33	15	14	15	14	25	6	35	23	62	51	50	51	54	45	47	34	49	45	49	64	39	29	13	32	33	35
21	21	21	21	22	22	22	22	22	22	22	23	23	24	24	24	25	25	25	25	26	26	26	26	26	26	26	26	27	28	28	28	28	28	29	29	29	30	30	30	30	30	30	30	30	30	30	30	31	31	32	32	32	32
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254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307
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																																					1	1	1		1	1	1					1					
																																			1		1														1	
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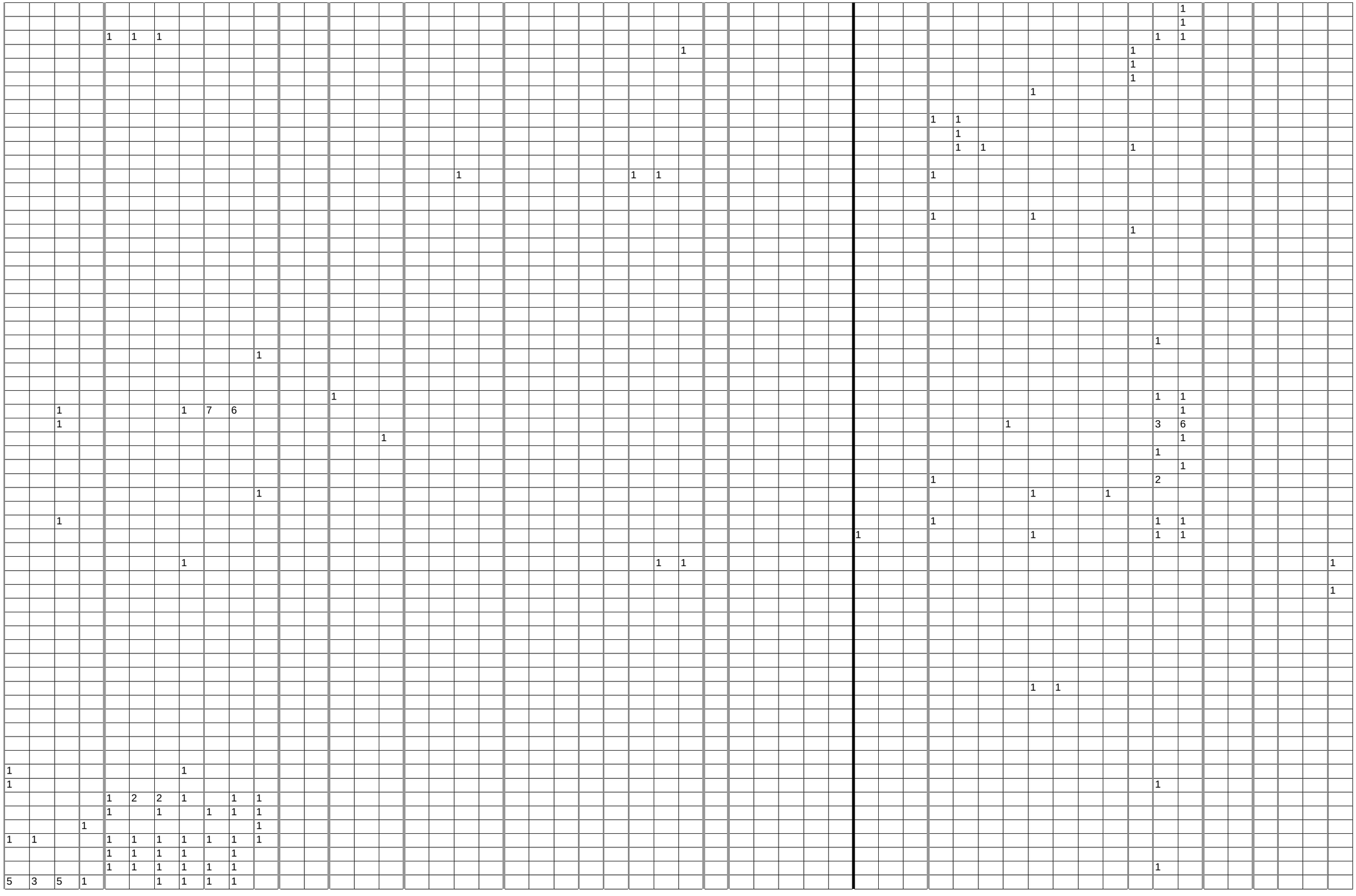

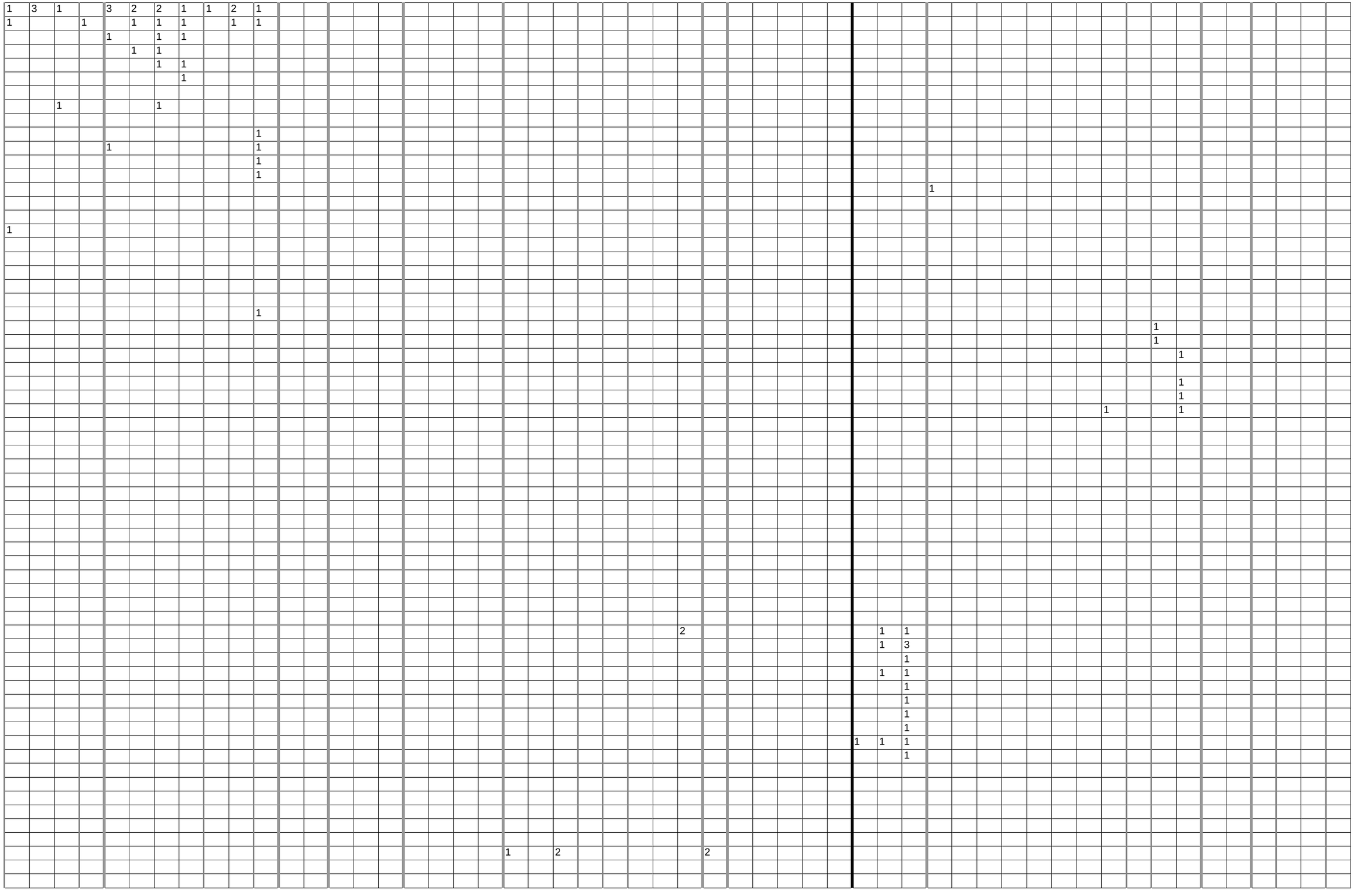

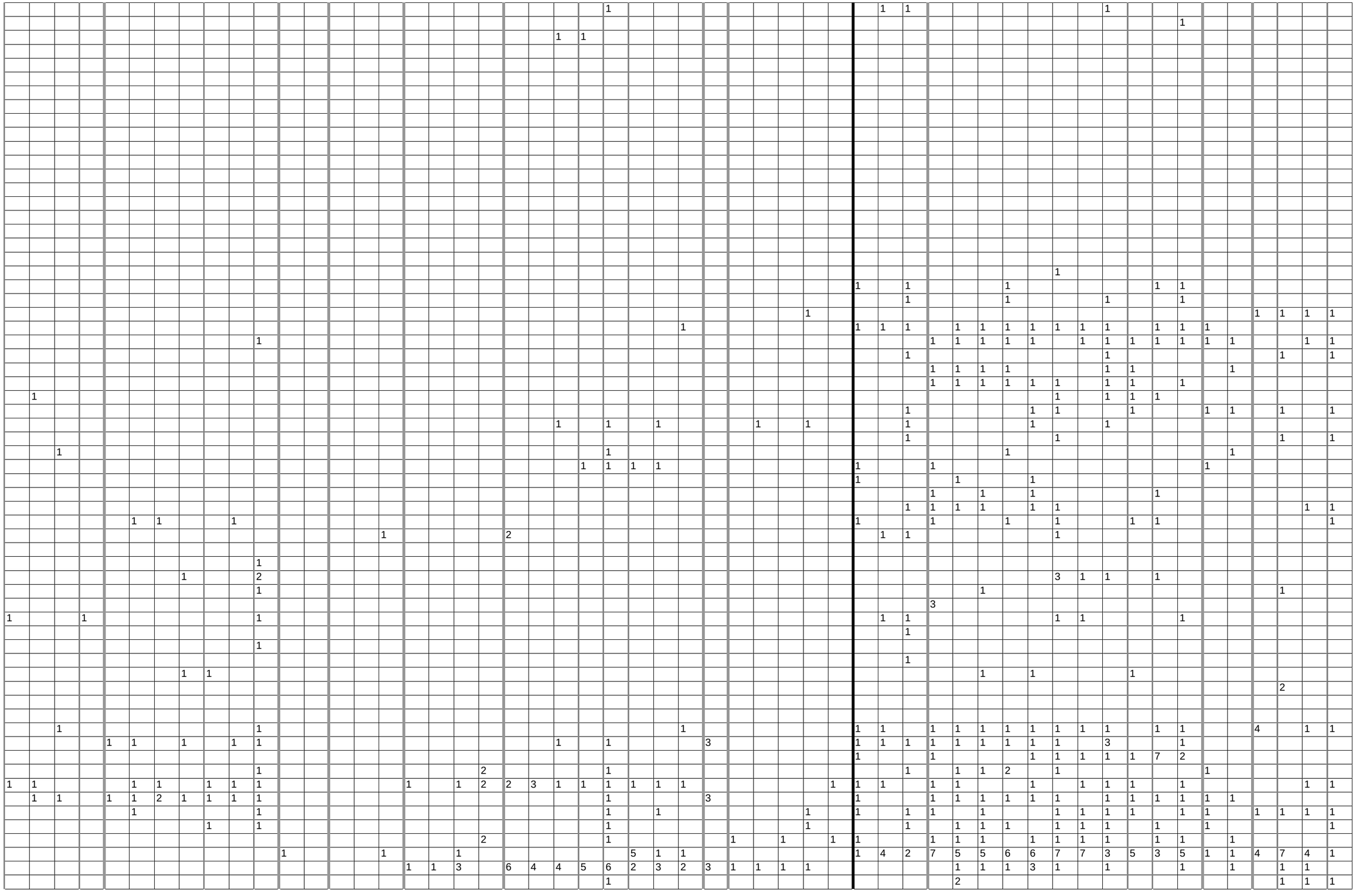

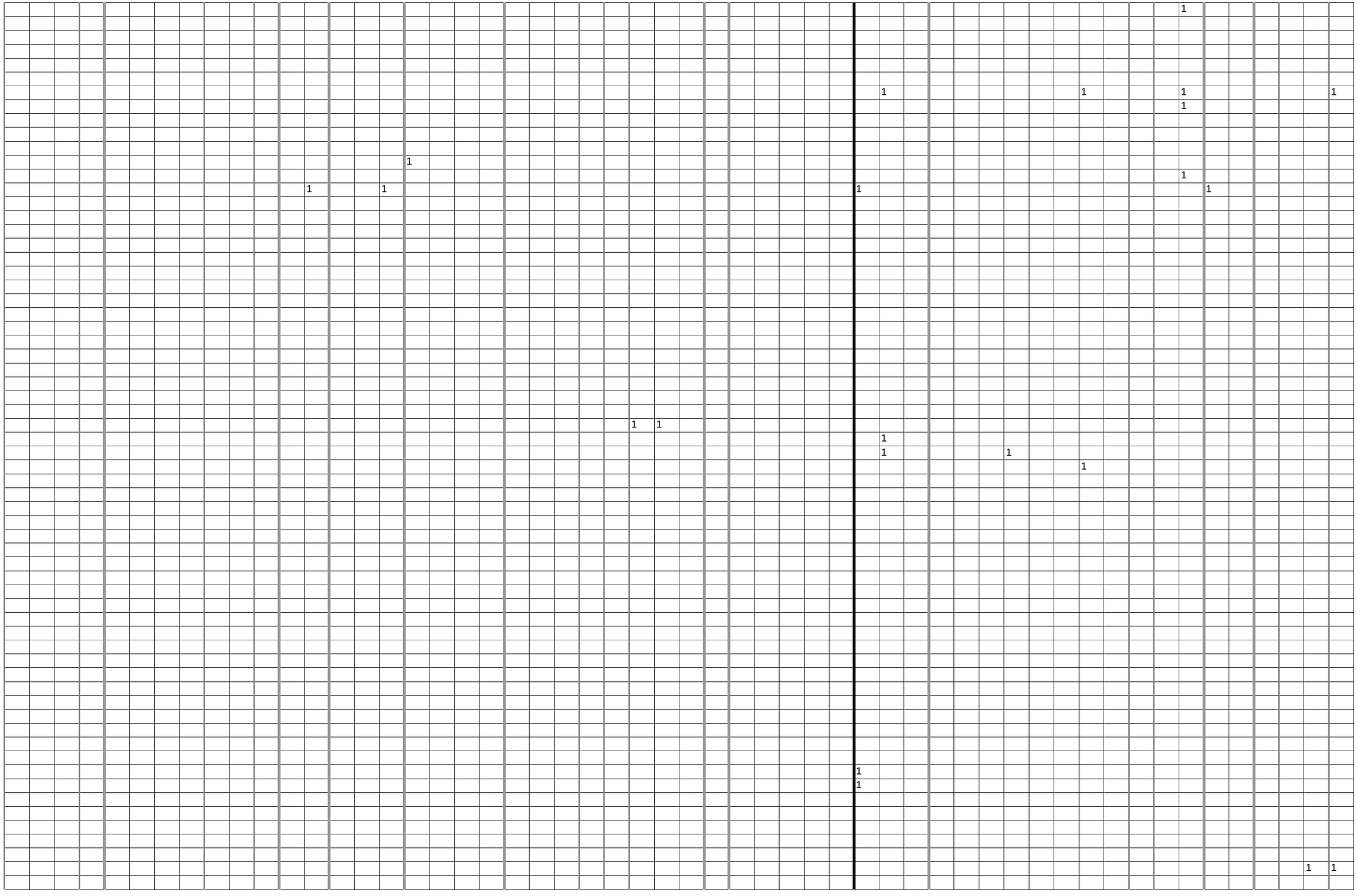

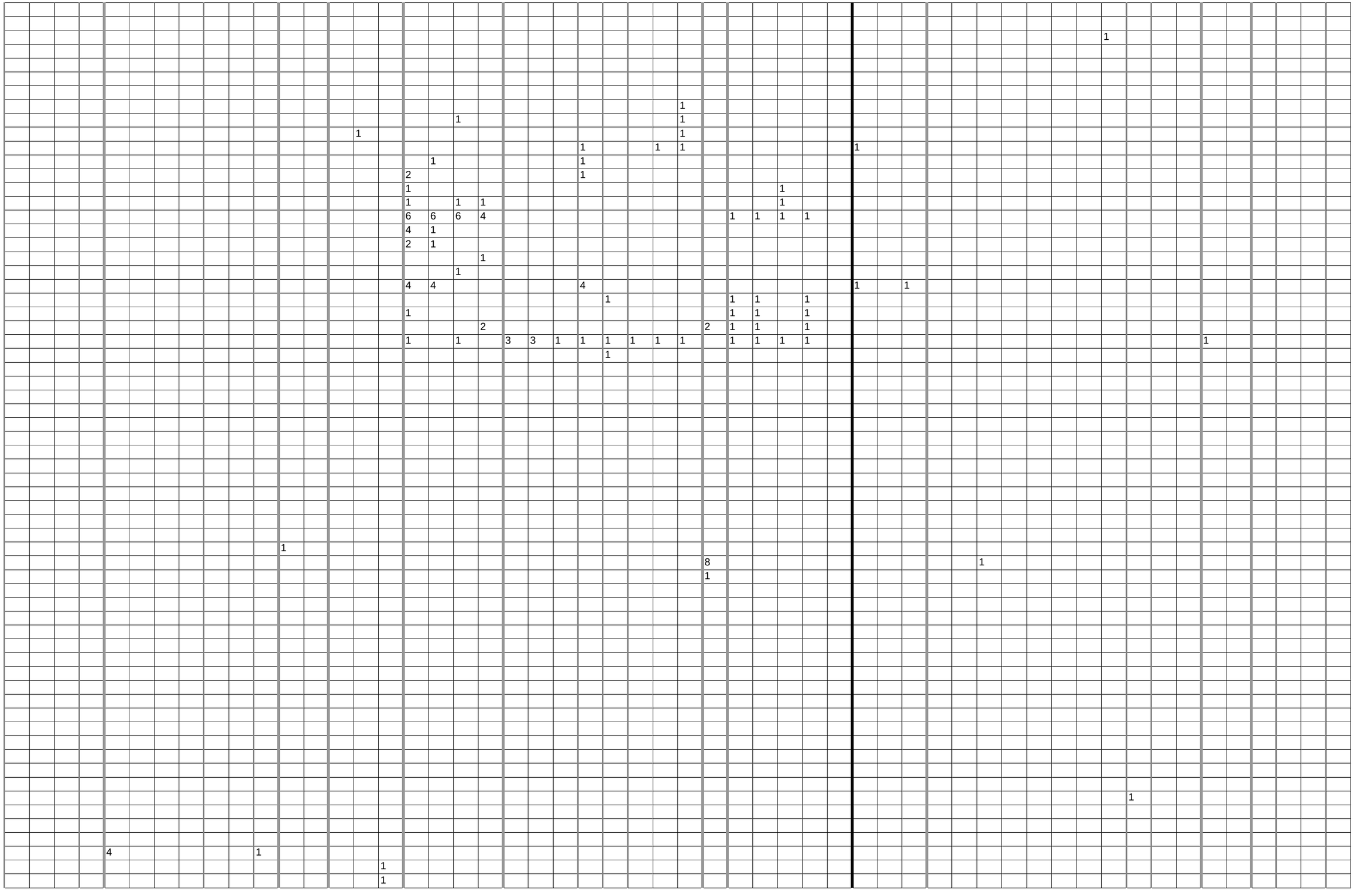

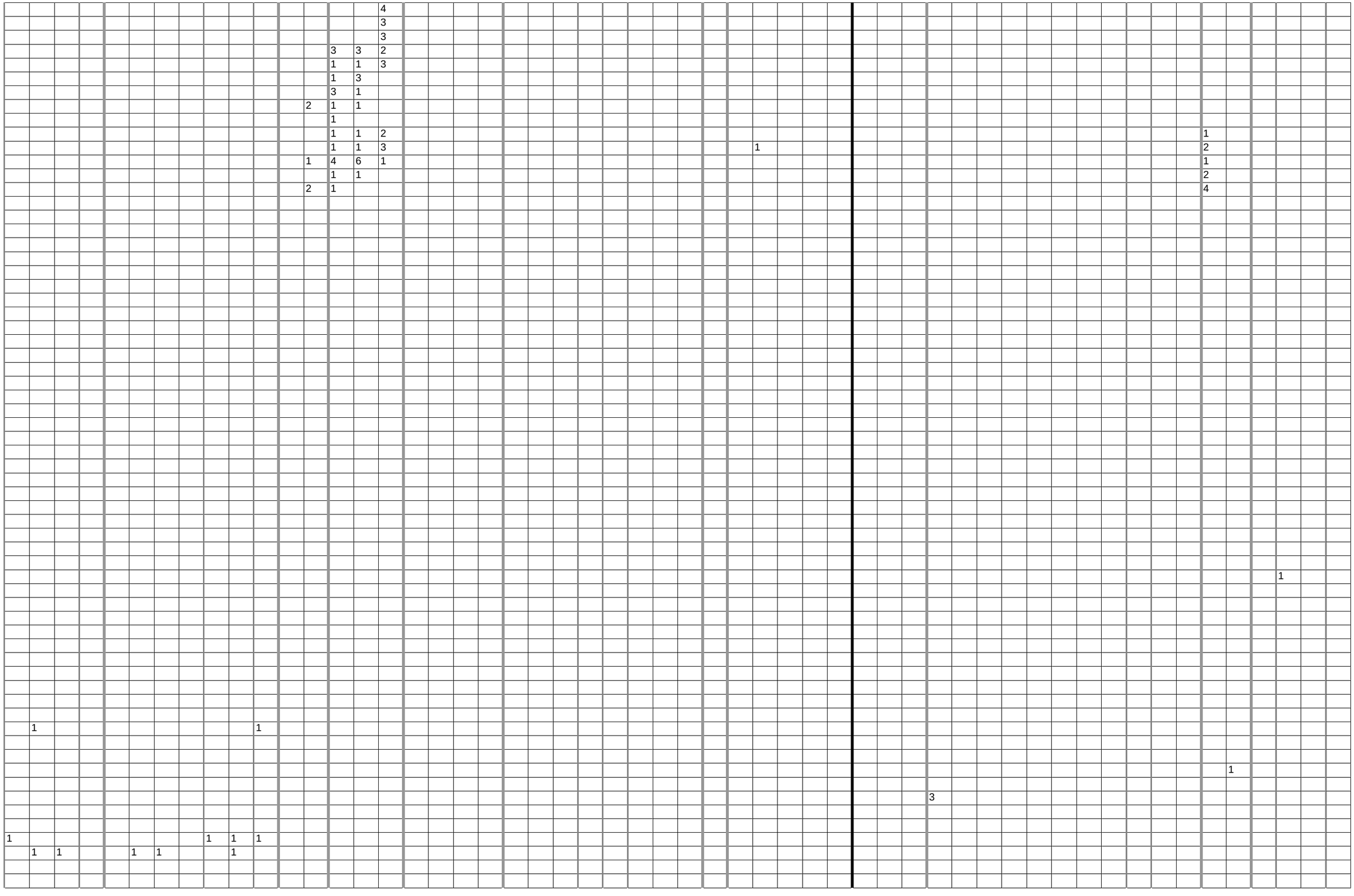
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Appendix 3: Sheet 2 Page 23

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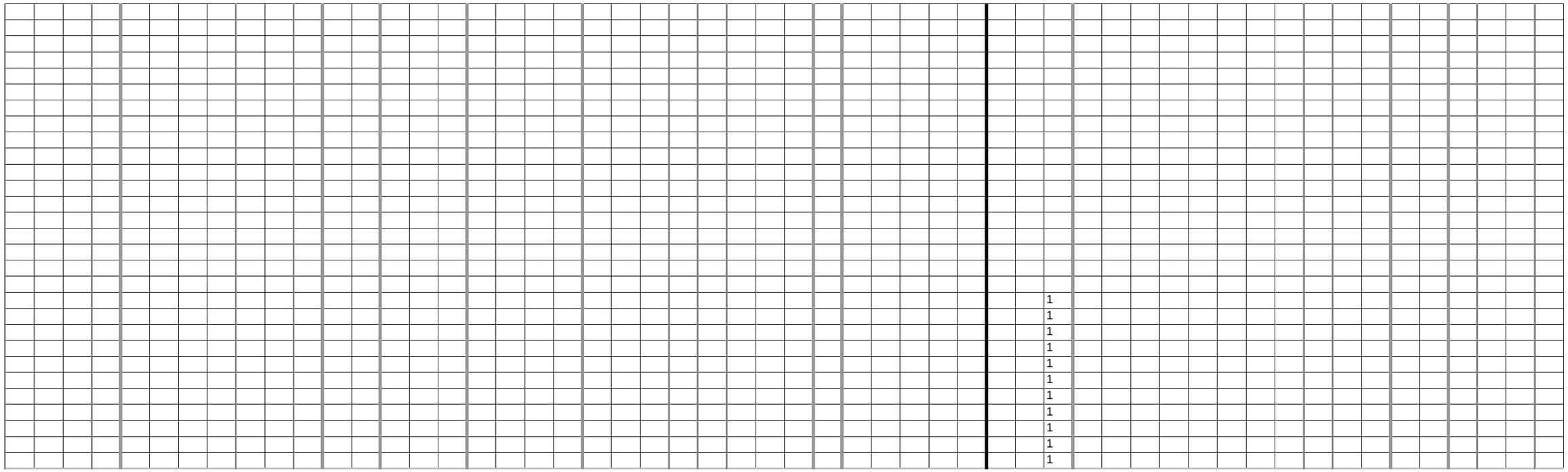
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Appendix 3: Sheet 2 Page 25

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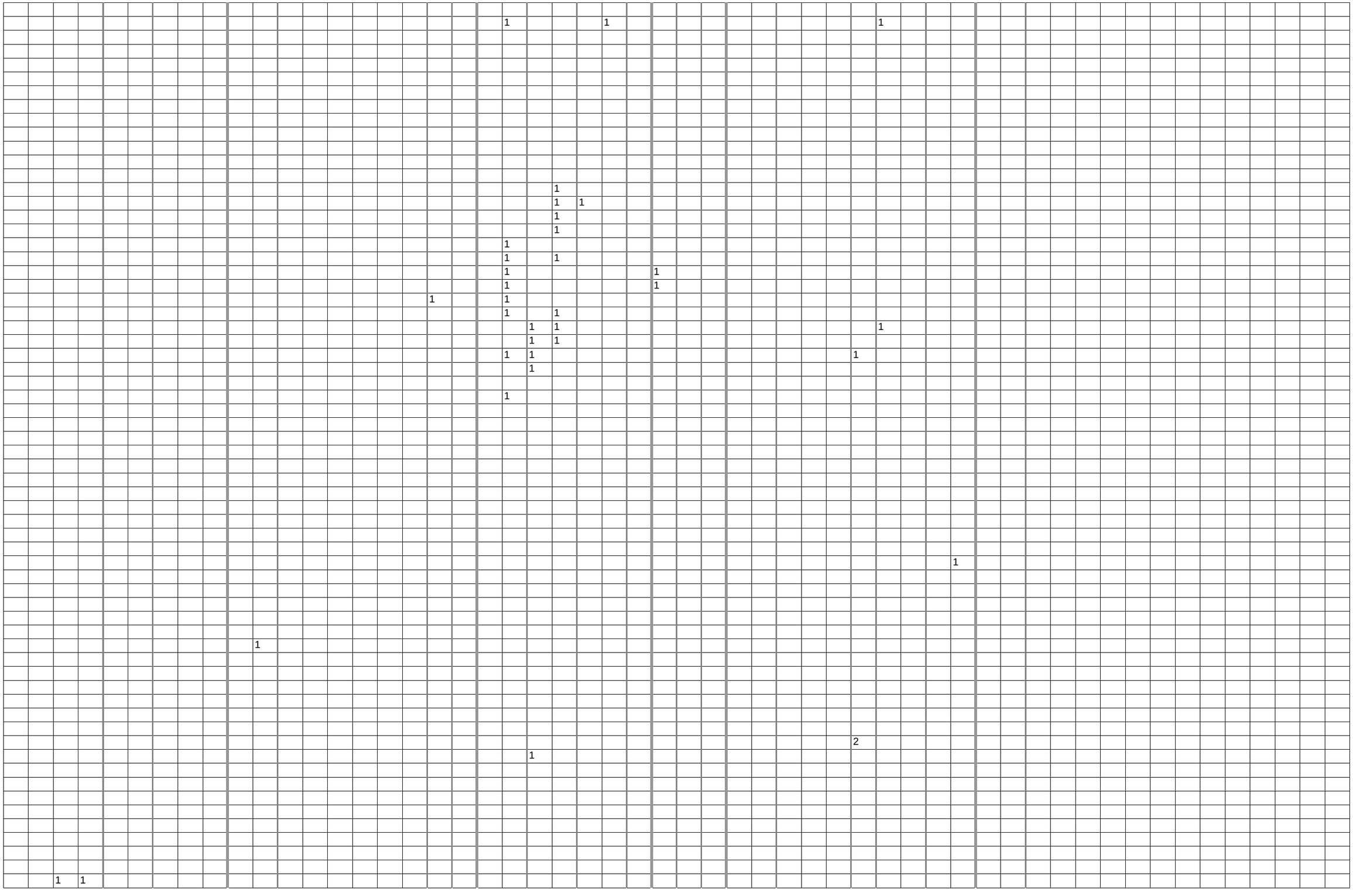

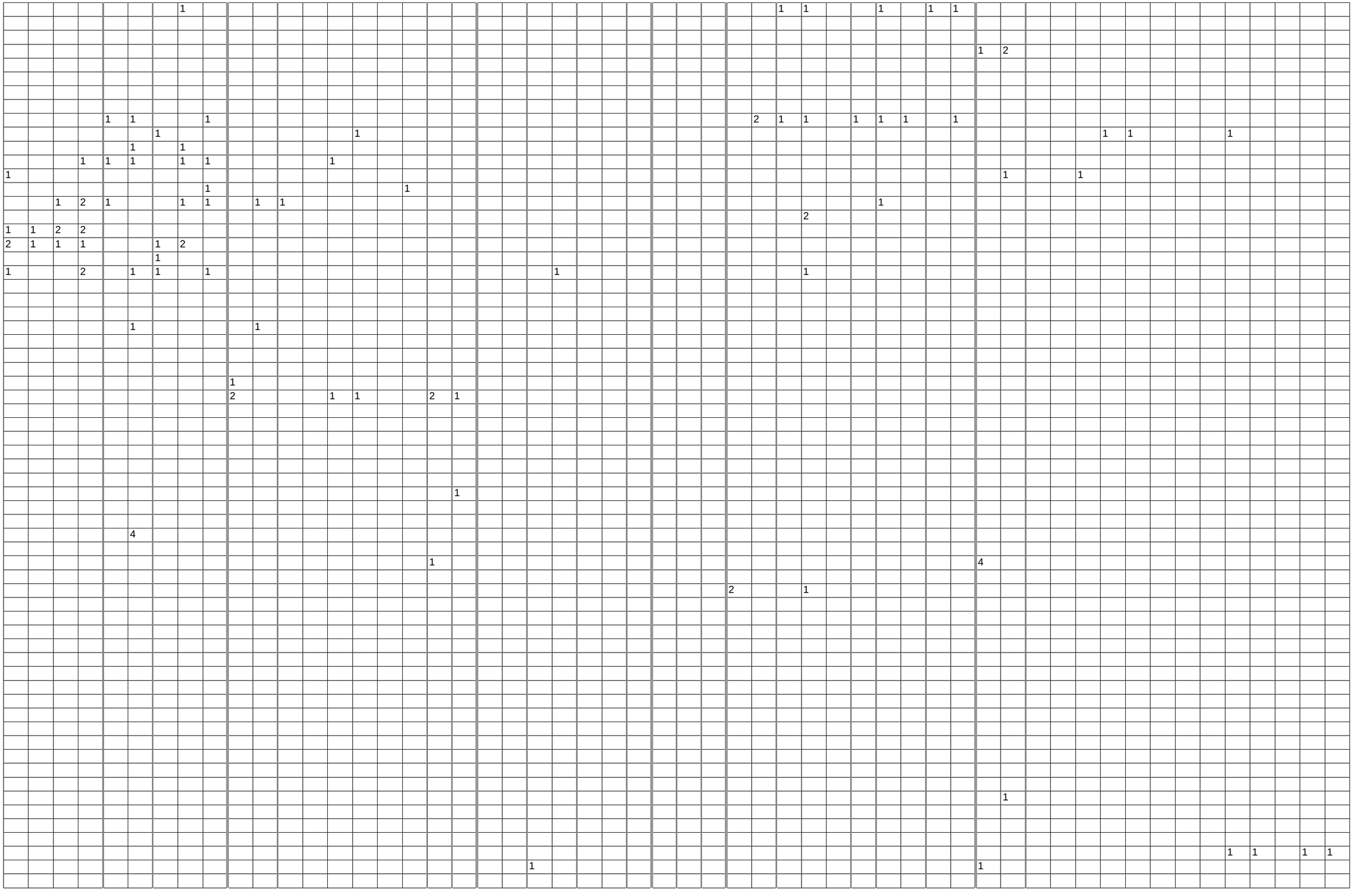

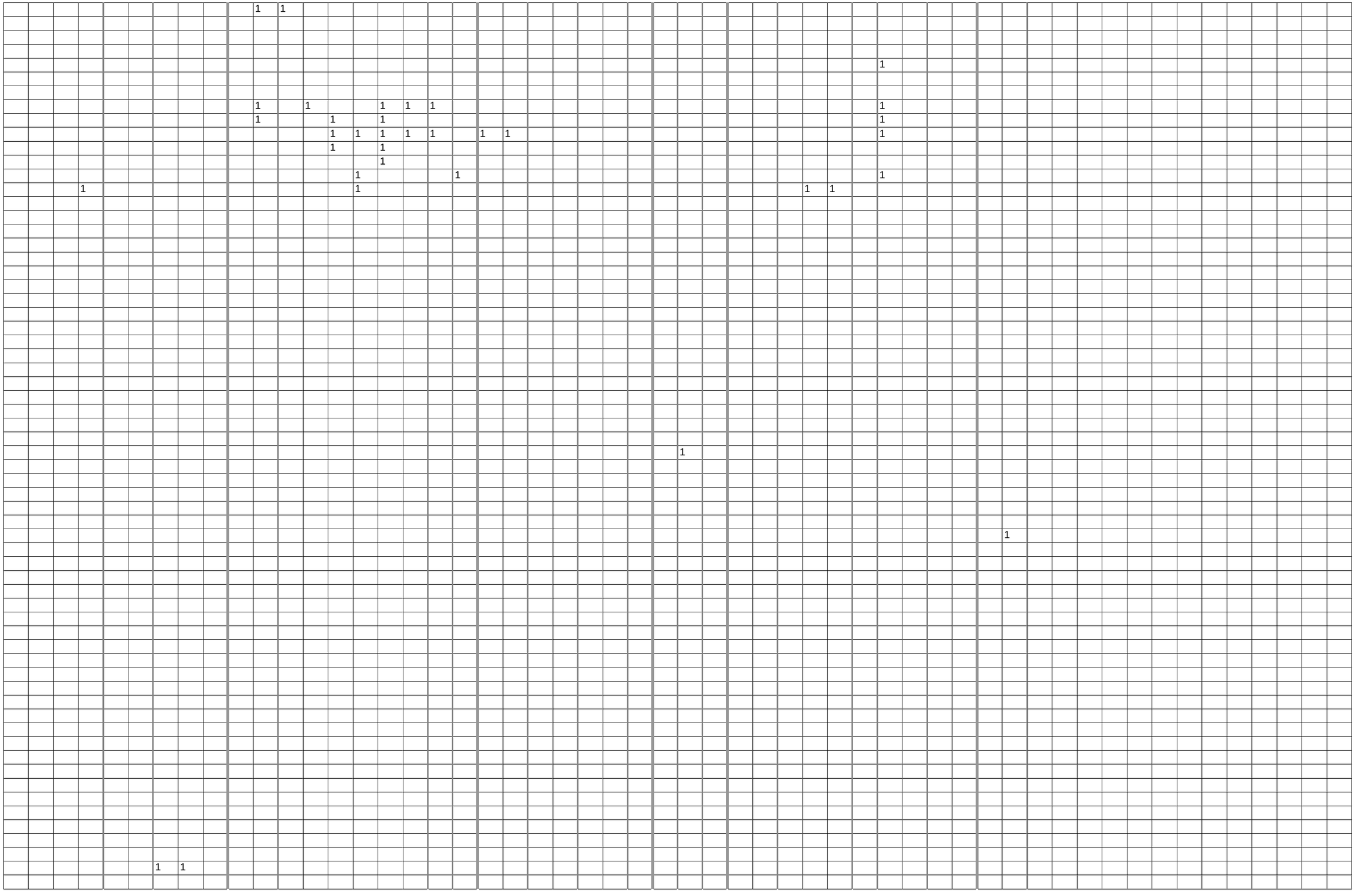

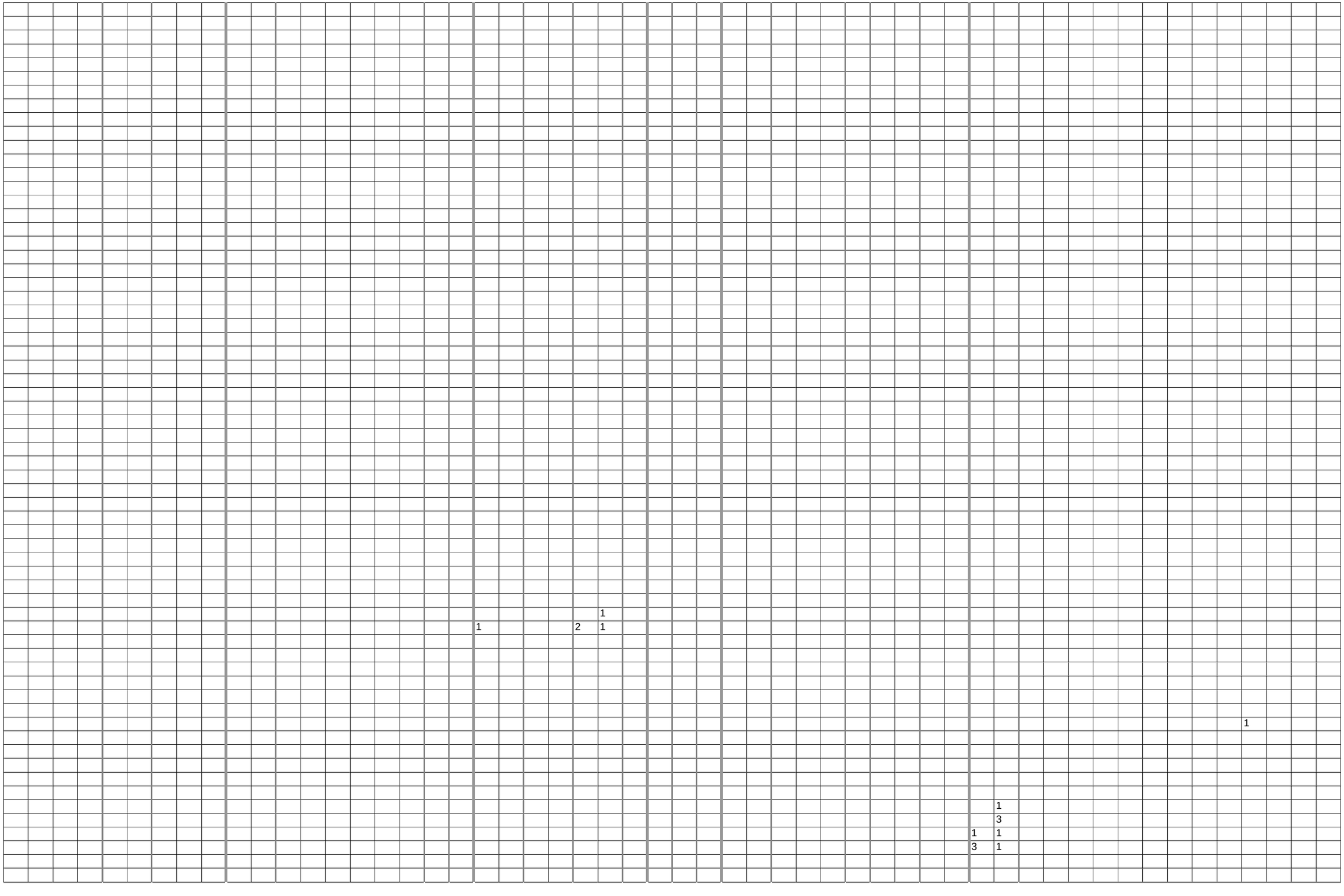
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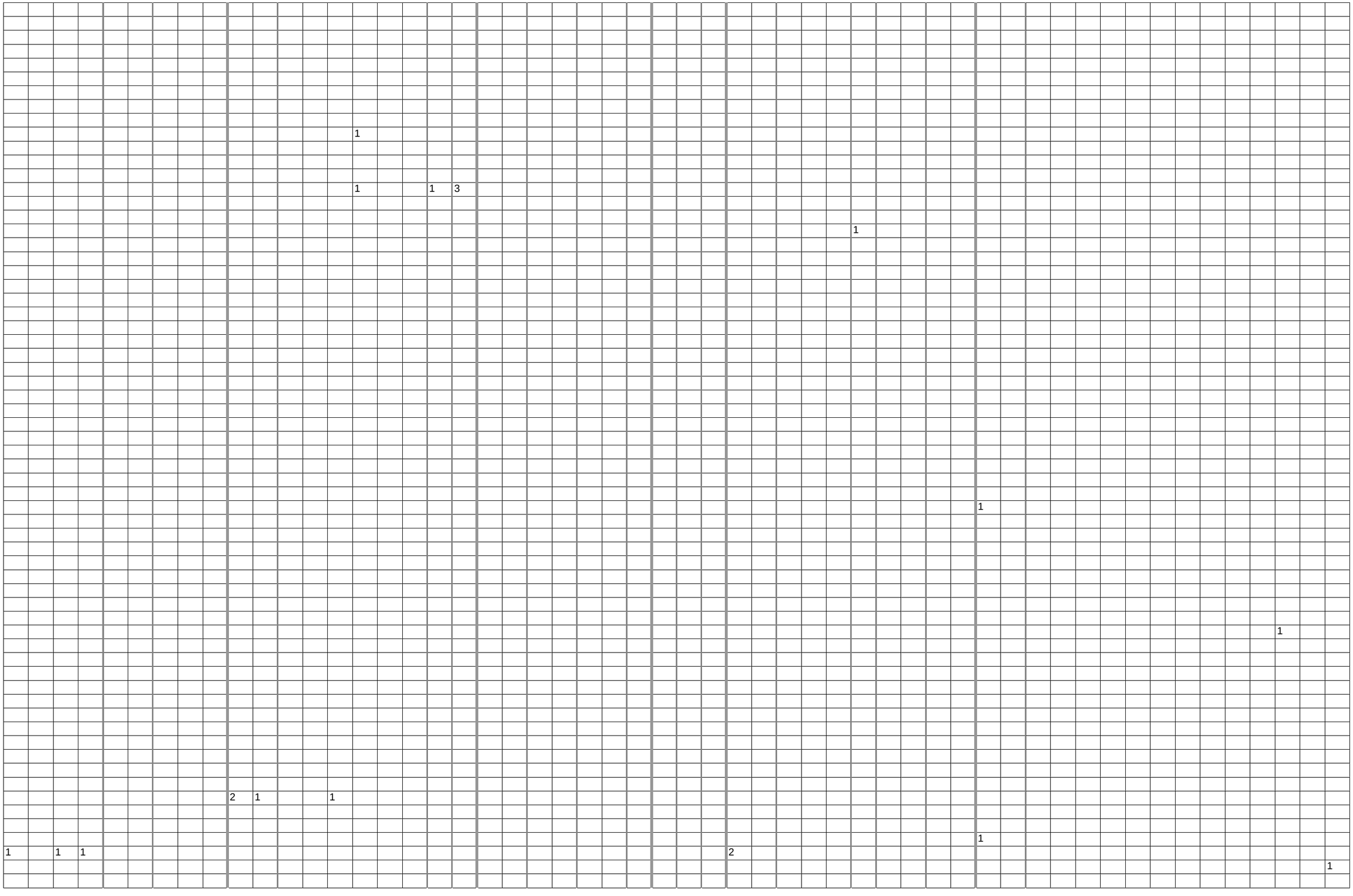
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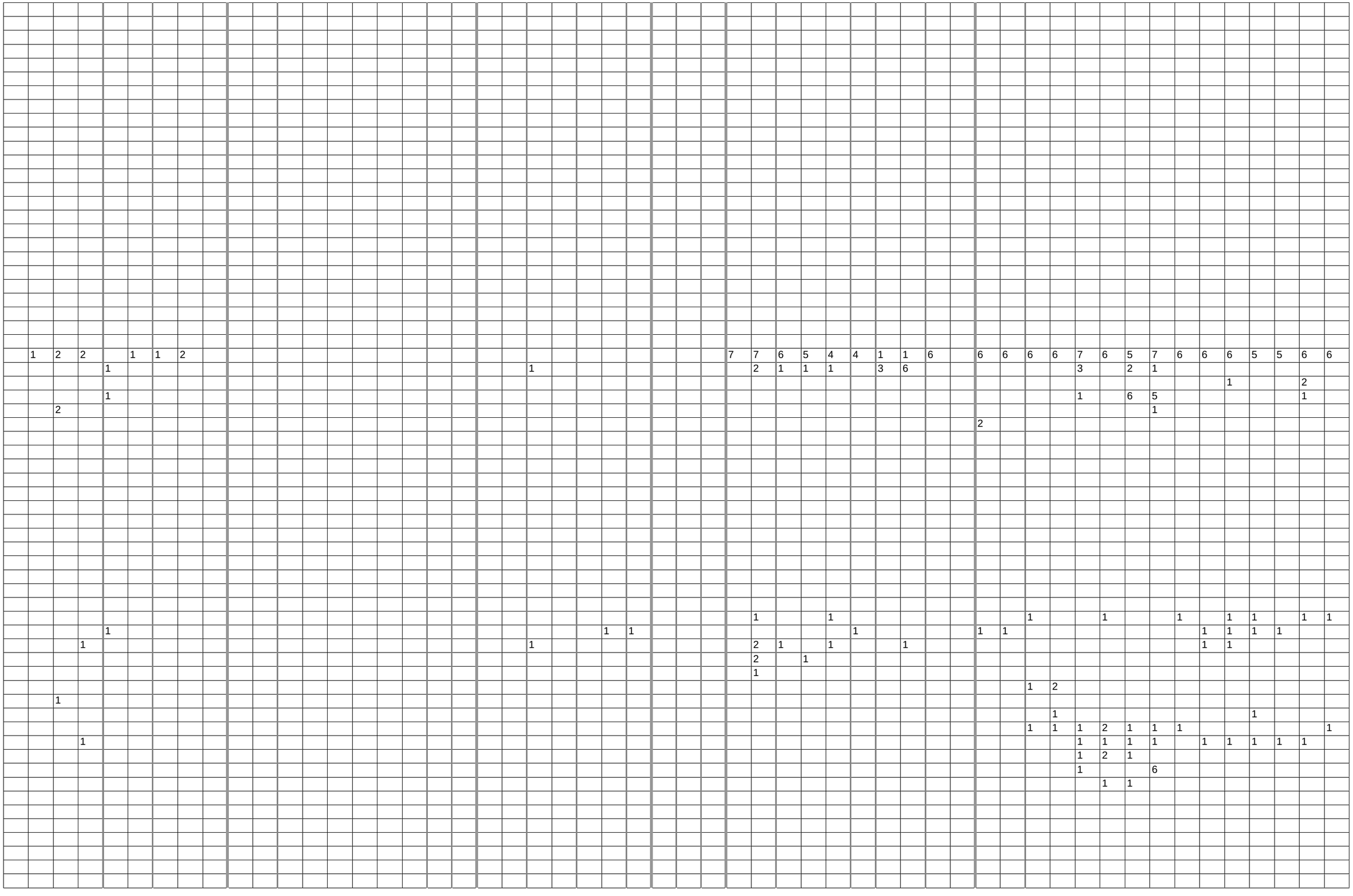

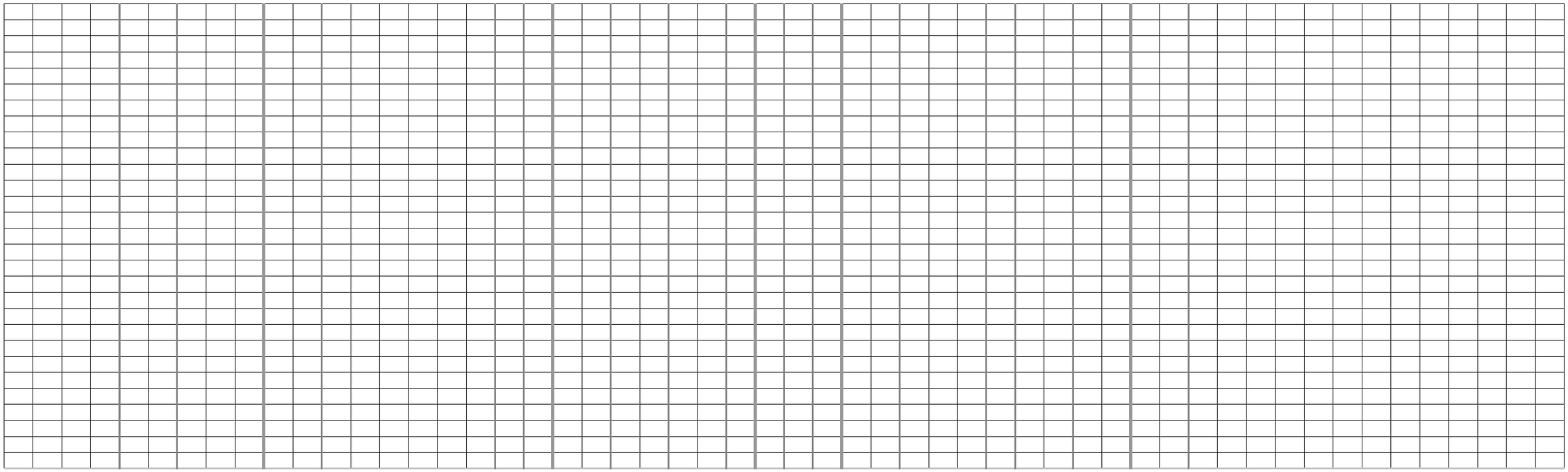

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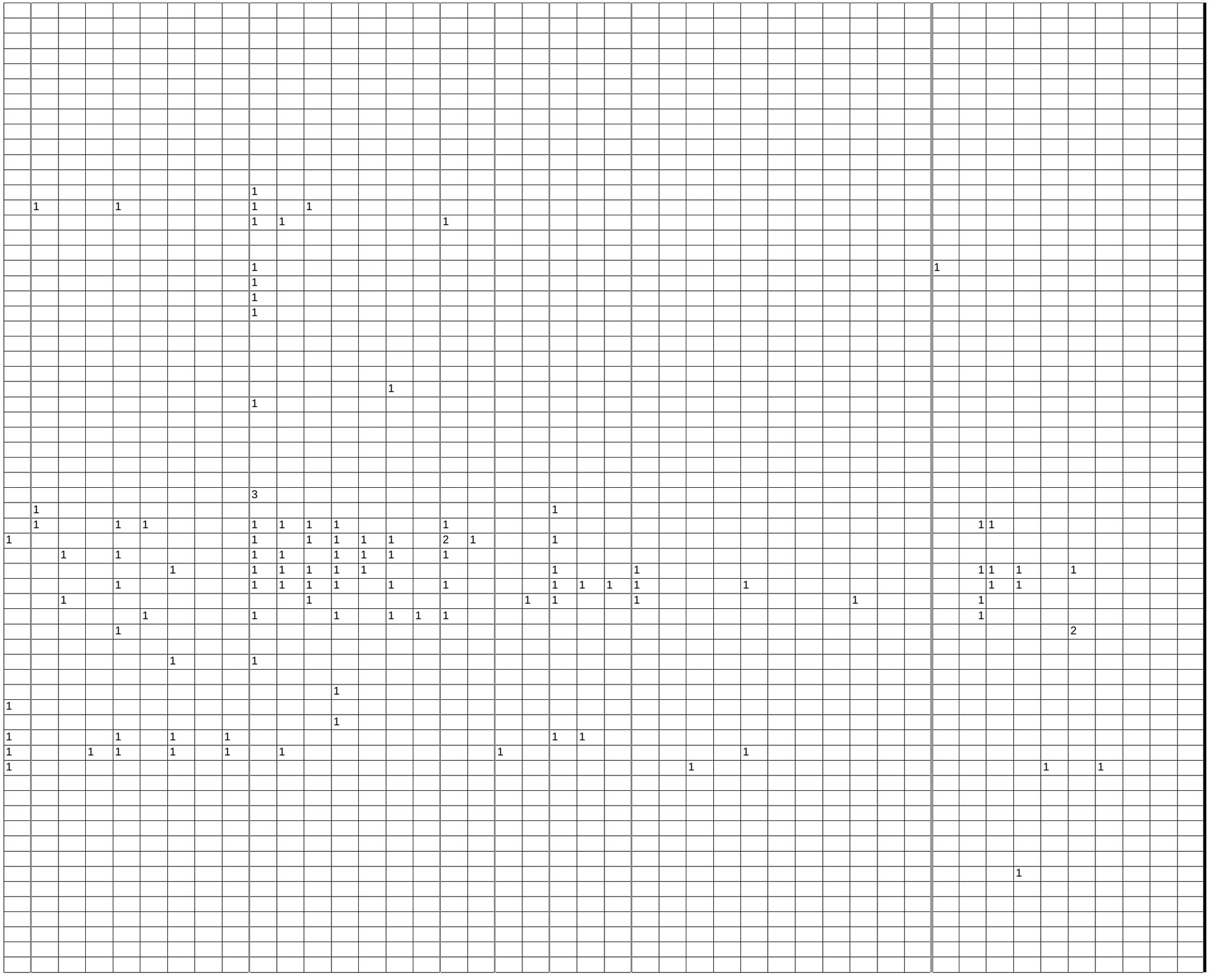

Appendix 3: Sheet 2 Page 43

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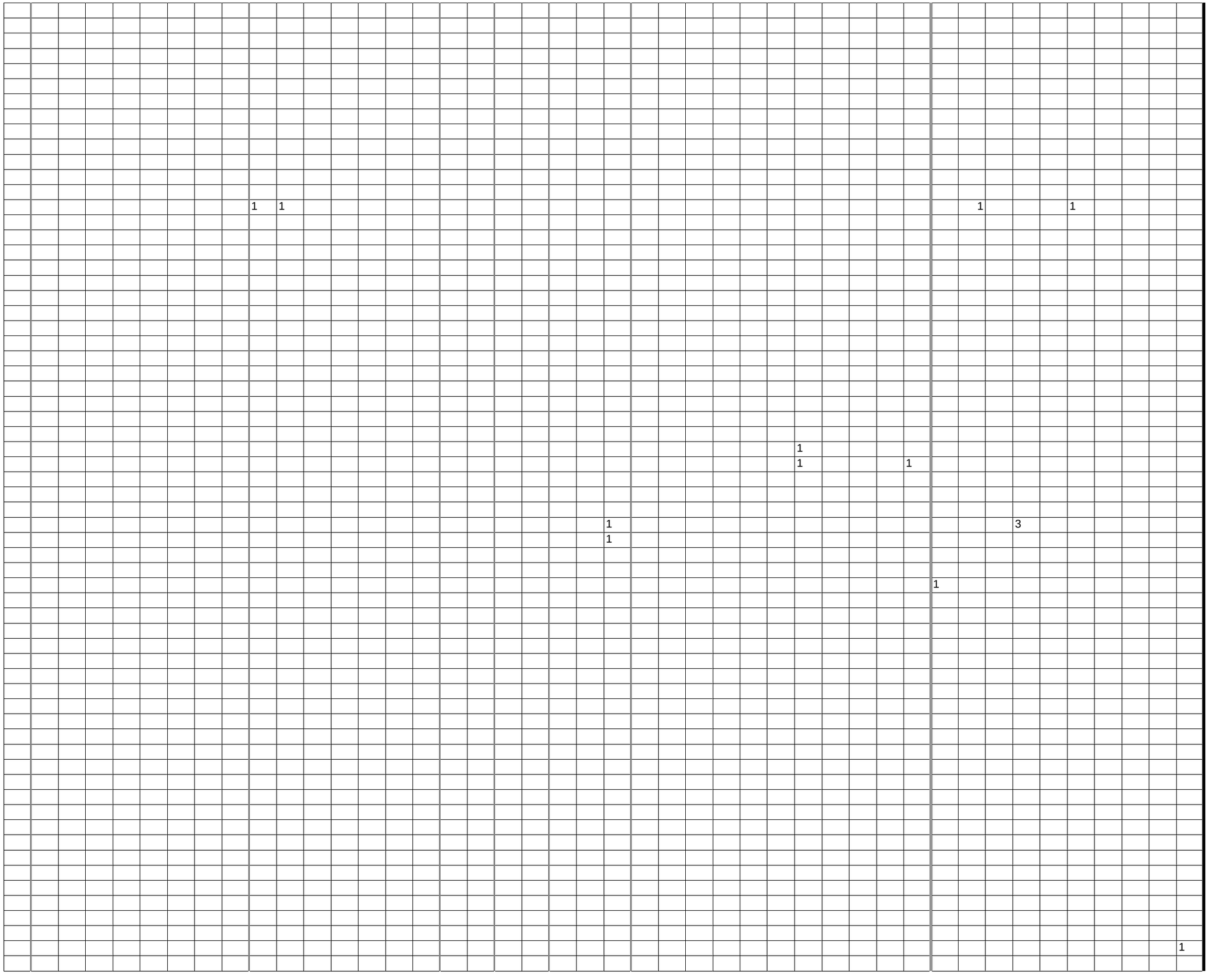

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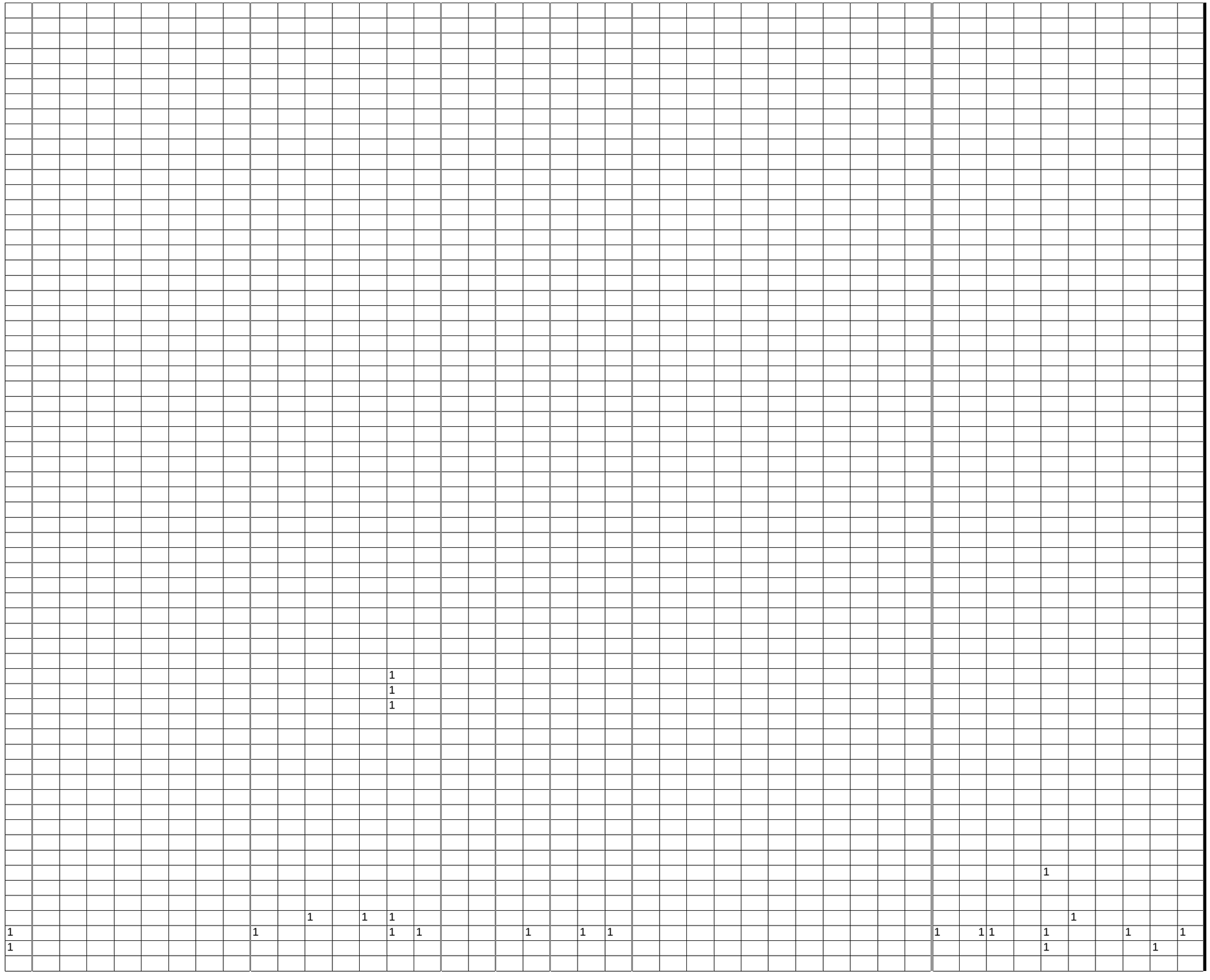

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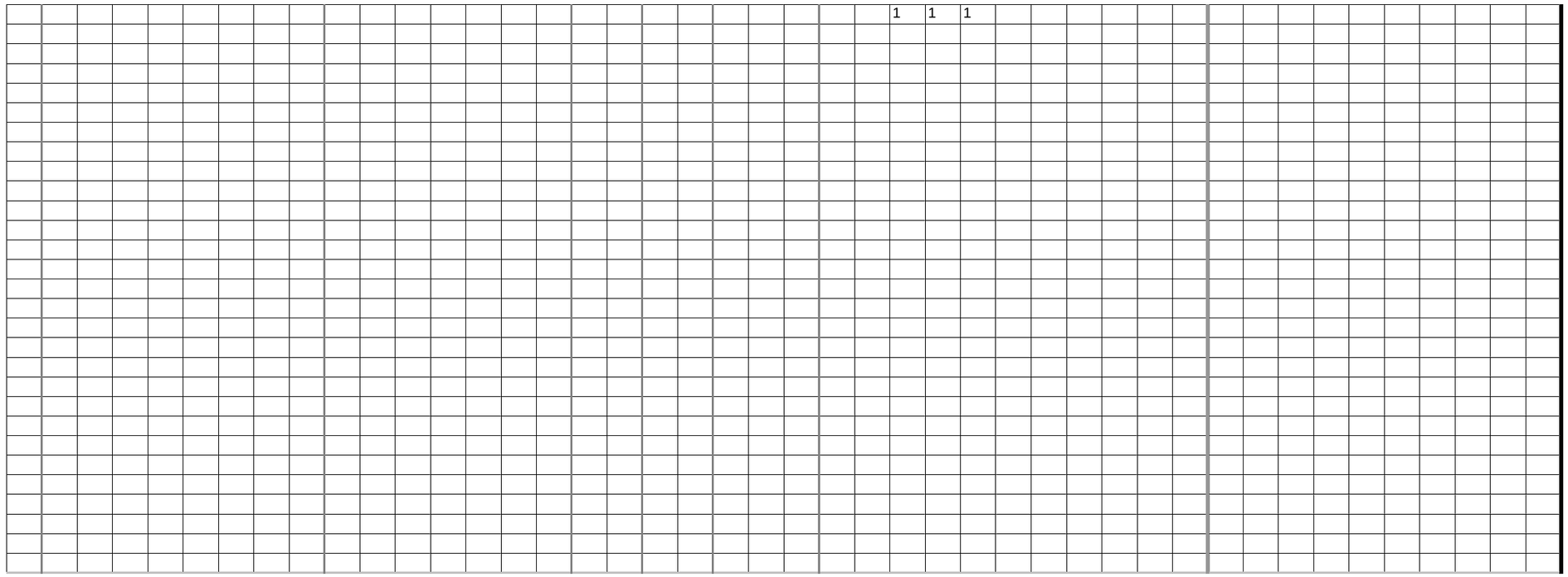
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Appendix 3: Sheet 3 Page 1

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1	Euphorbia aff. australis (B170-4)																																										
1	Euphorbia aff. australia (B191)																																										
1	Phyllanthus lacunellus																														1												
1	Bonamia pannosa																																										
2	Mukia aff. maderaspatana sp. F																																										
2	Digitaria brownii																																										
2	Bidens bipinnata																																										
2	Mukia aff. maderaspatana sp. C																																										
2	Hibiscus aff. platychlamys (M9.15)																																										
2	Indigofera monophylla (grey/green leaflet form)																																										
2	Hibiscus aff. platychlamys (M39.14)																																										
2	Corchorus aff. walcotti (K.J. Atkins 570)																																										
2	Corchorus aff. sidoides (KA204-10)																																										
2	Polycarpaea longiflora (White form, M13-7)																																										
2	Solanum gabrielae																																										
2	Solanum lasiophyllum	1	1	1		1		1	1	1																																	
2	Eremophila longifolia													1			2																											
2	Leptopus decaisnei var. decaisnei										1	1		1																													
2	Euphorbia aff. drummondii (M87)																																										
2	Maireana tomentosa																																										
2	Cassia pruinosa x ?glutinosa																																										
2	Tephrosia aff. supina (M19-3)																																										
2	Indigofera monophylla (Cape Preston form)																																										
2	Tephrosia clementii																																										
2	Sida clementii																																										
2	Sida aff. cardiophylla (site 1086)																																										
2	Hibiscus aff. coatesii (site 664)																																										
3	Sida aff. fibulifera (M37.16)																																										
3	Pterocaulon sphaeranthoides x sphacelatum														1																													
3	Porana commixta																																						1				
4	Hibiscus aff. platychlamys (site 1139)																																										
4	Paraneurachne muelleri																																										
4	Isotropis atropurpurea																																										
5	Ptilotus auriculifolius																																										
5	Tribulus hirsutus																																										
5	Euphorbia boophthona																																										
5	Abutilon trudgenii																																										
5	Waltheria indica																																										
5	Solanum diversiflorum																																										
5	Dysphania rhadinostachya subsp. rhadinostachya																																										
5	Ptilotus fusiformis var. fusiformis																																										
6	Tephrosia aff. densa (B17)																																										
6	Sida rohlenae var. rohlenae										1	1	1		1																		1										
6	Nicotiana benthamiana													1																							1						

6	Sida sp. 'rugose'																																										
6	Amaranthus interruptus														1																												
6	Gomphrena canescens																																										
7	Eremophila forrestii x latrobei																																										
7	Ptilotus clementii																																										
7	Haloragis gossei																																										
8	Cullen pogonocarpum																																										
9	Keraudrenia nephrosperma																																										
9	Heliotropium chrysocarpum																																										
10	Pluchea ferdinandi-muelleri																																										
11	Euphorbia aff. australis type 1 (erect stems)																																										
11	Zaleya galericulata						1							1																													
11	Cuscuta victoriana													1																				1									
12	Cassia oligophylla x helmsii											1																															
13	Euphorbia tannensis subsp. eremophila (Burrup form)																																	1									
13	Indigofera linnaei																																	1									
13	Trianthema turgidifolia																																	2									
13	Salsola tragus																																										
13	Heliotropium cunninghamii																																										
13	Synaptantha tillaeacea var. tillaeacea																																		2								
13	Eulalia aurea																																										
14	Setaria verticillata																																										
15	Sida aff. fibulifera (M85.15)																																										
15	Themeda triandra		1	1						7																																	
15	Acacia sclerosperma																																										
15	Convolvulus erubescens																																										
15	Cenchrus setigerus																																										
15	Prosopis pallida																																										
15	Dactyloctenium radulans																																										
15	Goodenia forrestii																																										
15	Achyranthes aspera								1								1							1								2							1				
15	Alternanthera nana								1																																		
15	Malvastrum americanum																				1																				1		
15	Acacia farnesiana																																										
15	Corchorus tridens																																										
15	Ipomoea muelleri																																										
16	Enneapogon oblongus																																										
16	Boerhavia burbidgeana																					1	1	1								1				1							
16	Operculina aequisepala														4																												
16	Amaranthus mitchellii																																										
17	Panicum decompositum																																										
17	Santalum lanceolatum							1																																			
17	Abutilon cunninghamii																																										
17	Myoporum montanum																											1															
18	Sida aff. fibulifera (MET Site 1346)																																										
19	Abutilon aff. lepidum (1) (MET 15 352)																																										
19	Bothriochloa ewartiana																																										
20	Heliotropium inexplicitum																																										
21	Amaranthus sp. (M99-1)																																										
21	Alternanthera nodiflora																																										
21	Abutilon amplum																																										
21	Erythrina vespertilio																																										
21	Passiflora foetida																																				1						
21	Vigna lanceolata var. lanceolata																																										
21	Cucumis melo subsp. agrestis																																										
21	Melochia pyramidata																																										
21	Rostellularia adscendens var. clementii																																										
22	Eragrostis dielsii																																										
22	Trianthema triquetra																																										
23	Cyperus bulbosus																																										
23	Samolus repens																																										
23	Dysphania plantaginella																																										
23	Swainsona kingii																																										
24	Marsilea hirsuta																																										

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24	Centipeda minima																																										
24	Cyperus iria																																										
25	Sida spinosa													1																													
26	Boerhavia type 2																																										
26	Amaranthus aff. pallidiflorus (WAS1127)																																										
27	Amaranthus aff. interruptus (MET 16,114)																																										
27	Abutilon aff. fraseri (1)																																										
27	Striga squamigera																																										
28	Boerhavia type 1																																										
28	Cymbopogon bombycinus																																										
28	Glycine canescens																																										
29	Mukia aff. maderaspatana sp. B																																										
29	Tribulus aff. occidentalis (M68.4)																																										
29	Sclerolaena costata																																										
29	Ptilotus helipteroides var. helipteroides																																										
30	Euphorbia aff. australis (M32-9)																																										
30	Dicladanthera forrestii																																										
31	Euphorbia boophthona (Large seed form)																																										
31	Abutilon aff. lepidum (2) (MET 15 970)																																										
31	Cleome oxalidea																																										
31	Heliotropium heteranthum																																										
32	Bulbostylis turbinata (form B; M1.16)																																										
32	Atriplex codonocarpa																																										
32	Trianthema aff. triquetra (M3.35)																																										
32	Hibiscus brachysiphonius																																										
33	Sida aff. fibulifera 'var. L'																																										
33	Streptoglossa liatroides																																										
33	Ptilotus murrayi var. murrayi																																										
33	Eragrostis xerophila																																										
33	Neptunia dimorphantha																																										
33	Eriachne benthamii																																										
33	Xerochloa imberbis																																										
33	Acacia xiphophylla																																										
33	Fimbristylis depauperata																																										
34	Indigastrum parviflorum (Cape Preston form; M23.12)																																										
34	Aristida contorta																																										
34	Iseilema dolichotrichum																																										
34	Sporobolus australasicus													1																													
34	Dichanthium sericeum subsp. humilius																																										
34	Ptilotus aervoides																																										
34	Enneapogon caerulescens var. occidentalis																																										
34	Cassia aff. oligophylla (thinly sericeous)																																										
34	Brachyachne prostrata																																										
34	Sarcostemma viminale subsp. australe																		1																								
34	Cassia glutinosa x luerssenii																																										
34	Tragus australianus																																										
34	Maireana planifolia																																										
34	Sclerolaena uniflora																																										
34	Sclerolaena eriacantha																																										
34	Acacia victoriae																																										
34	Eremophila forrestii subsp. forrestii																																										
35	Enteropogon acicularis																																										
35	Cassia chatelainiana																																										
35	Schoenoplectus laevis																																										
36	Mimulus gracilis																																										
37	Crotalaria dissitiflora subsp. benthamiana																																										
37	Stemodia kingii																																										
37	Aristida latifolia																																										
37	Heliotropium conocarpum																																										
37	Mukia sp.D Flora of Australia(A.A.Mitchell PRP 1121)																																										
37	Brachyachne convergens																																										
37	Desmodium muelleri																																										
37	Boerhavia paludosa																																										
37	Sida fibulifera																																										

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37	Streptoglossa bubakii																																										
37	Ptilotus gomphrenoides var. gomphrenoides																																										
37	Rhynchosia sp. Barowanna Hill (MET 15 623)																																										
37	Paspalidium aff. jubiflorum (MET 15 807)																																										
37	Iseilema aff. fragile																																										
37	Panicum laevinode																																										
37	Euphorbia sp. Harding (MET 15 683)																																										
37	Heliotropium crispatum																																										
37	Neptunia monosperma																																										
38	Euphorbia sp. (site 1089)																																										
38	Crotalaria juncea																																										
38	Hibiscus trionum var. vesicarius																																										
38	Vittadinia obovata																																										
39	Sida aff. fibulifera (MET Site 1308)																																										
39	Polygala sp. (M21-7)																																										
39	Eragrostis setifolia																																										
39	Oldenlandia sp. 'gilgai'																																										
40	Goodenia aff. pascua																																										
40	Abutilon malvifolium																																										
40	Sclerolaena glabra																																										
40	Cassia hamersleyensis																																										
40	Cullen graveolens																																										
40	Ptilotus carinatus																																										
41	Euphorbia aff. drummondii (MET 15211)																																										
41	Iseilema membranaceum																																										
41	Chloris pectinata																																										
41	Swainsona leeana																																										
42	Heliotropium sp. (M45-21)																																										
42	Blumea tenella																																										
42	Goodenia nuda																																										
43	Polymeria (Site 1365)																																										
43	Abutilon macrum																																										
44	Eriachne aristidea																																										
45	Tripogon loliiformis																																										
45	Cheilanthes sieberi subsp. sieberi																																										
46	Rhynchosia sp. King Bay (B181-13)																																										
46	Sida aff. fibulifera (B181-5B)																																										
46	Solanum esuriale																																										
47	Euphorbia sp. (BPBS10-50)																																										
47	Tephrosia aff clementii (4) (M35-14)																																										
48	Abutilon sp. Fortescue (M. Maier 28A-4)																																										
48	Hibiscus aff. platychlamys (M39-14)																																										
48	Tephrosia leptoclada																																										
48	Zornia albiflora																																										
49	Ptilotus spathulatus																																										
50	Eragrostis eriopoda																																										
50	Eriachne ovata																																										
50	Crotalaria cunninghamii																																										
50	Ipomoea polymorpha																																										
50	Ptilotus axillaris																																										
51	Schizachyrium fragile																																										
51	Desmodium filiforme																																										
51	Zornia muelleriana subsp. congesta																																										
51	Aristida holathera var. holathera																																										
52	Abutilon oxycarpum subsp. prostratum																																										
53	Abutilon aff. dioicum (HD72-14)																																										2
53	Eucalyptus xerothermica																																										
53	Amaranthus aff. pallidiflorus (D89)																															2											
53	Ficus opposita																2								1							2									1		
53	Phyllanthus ciccoides								1												1	1	1	1	1																		
53	Ficus virens var. sublanceolata																																										
53	Paspalidium tabulatum (Burrup Form)																	1	1	1	1	1	1	1		4	1	1		1	1	2			1	1	1	1	1	1	1	1	1
53	Dichrostachys spicata					2					1	1	1		1											4	4	1	3	3	2					2	1	1	1	1	1	3	
53	Alectryon oleifolius																		2			1	1		1	3	1	1	2	1		2		2	2	1		1	1			1	

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53	Abutilon fraseri																					1		1		1	1		5	1		2	1			1	1	1	1				1
53	Rhynchosia sp. Burrup (82-1C)																													1	2		2			1	1				1		2
53	Dicliptera armata																									1	1	4			1	2				3	1	2	2	1		1	3
53	Ipomoea costata																	6	6	1		1			1	1	1	2			2	2	2			1	1	1	1	1		2	1
53	Terminalia supranitifolia																					1		1			2		4	4	1		4		3	1	1	1	1	1	1	2	1
53	Brachychiton acuminatus	1	1	1				2	1													1		1	1	1	3	1	3	0	1	2	4	1	2		1	1	1		1	2	1
53	Pittosporum phylliraeoides var. phylliraeoides																		3		1	1	1			1	3	2		5	2	2		1	2			1					
53	Clerodendrum tomentosum							1			1	1			1	1										1	2				1	2			2			1	1				
53	Rhagodia eremaea	1		1		1														1	1	1	1	1	1	4		3	3	4	2	2	2		2	1	1	1	1	1	1	1	1
53	Scaevola spinescens					1					2	1	1	1	3	1	2		1			1				1		2	4			2		3	2			1	1	1	1	1	1
53	Mukia maderaspatana										1			1	1		1	1	1	1	1	1	1		1	1	1	2	2	1	2	2	2		1	1	1	1	1	1	1	1	
53	Tinospora smilacina	1	1			1	1		1		1	1	1	1	1	1	1	1	1		1	1	1		1	1	1	2	1	1	1	2	2	2	3		1	1	1	1	1	1	
53	Jasminum didymum subsp. lineare	1	1		1	1	1	1	1		2	1	1	1												1	1					2	2			1	1	1	1	1	1		1
53	Flueggea virosa subsp. melanthesoides	1	1	1	1			1	2	1	2	1	1	1	1			1	3	1	1	1	1	1		5	5	2	2	1		2				1	1	1	1	1	1	1	1
53	Ehretia saligna var. saligna							3			2	1	3	1	1	2	2								1	6	5				1				2			1	1	1		2	1
53	Ptilotus obovatus			1									1	1															4							1	1	1	1				1
53	Ficus platypoda	1	1	1																			1			1						2	5						1				1
53	Trichosanthes cucumerina	1	1	1		1	1				1	1		1	4			1	1	1				1		3	1	2			1	2	2										1
53	Commicarpus australis															1	2									5		4	3												1		1
53	Capparis spinosa var. nummularia	1	1														2	1	1	1	1	1	1		1	4	1	1															1
53	Melhania sp. Burrup																									1										1							1
53	Commelina ensifolia																														2						1	1					1
53	Cyperus hesperius			1							1				1															1													1
53	Plumbago zeylanica																										1			1								1					
53	Ficus opposita var. indecora	1						1								1		1		1	1		1																				
53	Euphorbia sp. (site 1163)										1	1					1										1			1													1
53	Tephrosia sp.B Kimberley Flora(C.A.Gardner 7300)														1																									1			
53	Cynanchum floribundum	1	1																												2												
53	Triodia angusta (Burrup Form)																				2	1	1				1	4	2								1						1
53	Triodia epactia (Burrup Form)																		1			1				3	4			1			1			1	2	1	1	1	1		1
53	Themeda sp. Burrup (B84)																	1	2	1			1													1	1			1			2
53	Triodia wiseana (Burrup Form)																																	8									
53	Cajanus cinereus																		1		1																						
53	Sorghum plumosum																	1	2		1																						
53	Pentalepis trichodesmoides					1																																					
53	Stylobasium spathulatum																										1																
53	Adriana tomentosa																																	1	2								
53	Rhagodia preissii subsp. obovata																	3	3								5								2								
53	Canavalia rosea																	5		1	1	1	1																				
53	Abutilon indicum var. australiense																		6			1	1																				
53	Vigna lanceolata var. latifolia																																										
54	Melhania sp. Fortescue (M33-22)																						1			1																	
54	Sida aff. fibulifera (oblong; MET 15 220)																																								1		
54	Tribulus occidentalis																																								1		
54	Gymnanthera cunninghamii																																										
54	Hakea chordophylla																																					1					
54	Sida aff. fibulifera (B64-13B)																																								1		
54	Ptilotus gaudichaudii var. gaudichaudii																																										
54	Pluchea tetranthera																																										
55	Vigna sp. Burrup (B18)																																				1						
55	Tephrosia aff. supina																																										
55	Striga curviflora																																										
55	Triumfetta appendiculata (Burrup Form)																										1			1						1	1	1	1	1	1	1	1
55	Corchorus walcottii																																	2		1					1	1	1
55	Indigofera monophylla (Burrup form)																																	2		1	1	1			1		1
55	Acacia colei																																			1						1	
55	Acacia orthocarpa											1																															
55	Acacia pyrifolia (green)																																										
55	Polycarpaea longiflora (red form)																														1						1						
55	Abutilon lepidum												1						1		1											1							1		1		
55	Eriachne obtusa																																										
55	Goodenia microptera																																										
55	Streptoglossa decurrens	1		1																		1												1	2				1		1		
55	Hibiscus sturtii var. campylochlamys																																										

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55	Pterocaulon sphaeranthoides							1																				1															
55	Acacia elachantha																											2															
55	Amaranthus sp. (D111)																														1											1		
55	Euphorbia sp. (B170-4)																																										
55	Stylosanthes hamata																																										
55	Polymeria calycina																																										
55	Pluchea dentex																																										
55	Cullen badocanum																																										
56	Cheilanthes aff. tenuifolia (B18)																																				1						
56	Evolvulus alsinoides var. decumbens																																										
56	Rhodanthe margarethae																																										
56	Ficus opposita var. aculeata																																										
56	Vittadinia virgata																																										
56	Solanum cleistogamum																																				1						
57	Ehretia ? (B23-22)																																									1	
57	Chenopodium pumilio																																										
57	Nicotiana occidentalis subsp. occidentalis																																										
57	Ventilago viminalis											1																															
58	Gossypium robinsonii																																										
59	Fimbristylis aff. dichotoma (M75-4)																																										
59	Crotalaria medicaginea (Burrup form; B65-11)																																	2			1						
59	Tephrosia aff supina (MET 12,357)																																			1	1			1			1
59	Trachymene aff. oleracea (B61)																1		1											1	1	1				1	1		1		1	1	
59	Evolvulus alsinoides var. villosicalyx							1										1									1							1					1				
59	Triumfetta clementii							1				1		1		1														1			1				1	1	1				
59	Gomphrena cunninghamii										1	1	1	1			1														2					1	1		1	1			
59	Acacia pyrifolia (slender, white)																																										
59	Hybanthus aurantiacus																																										
59	Bonamia media var. villosa																																										
59	Enchylaena tomentosa																				1	1	1		3	1		2	1		2		1	1	1	1	1	1	1	1	3	
59	Boerhavia coccinea										2			1		1	1													1								1		1		
59	Abutilon aff. lepidum (4)																																					1					
59	Paspalidium clementii																											2														1
59	Ptilotus exaltatus var. exaltatus																			1																						
59	Digitaria ctenantha																																				1						
59	Euphorbia biconvexa																					1																					
59	Portulaca oleracea																												1														
59	Alysicarpus rugosus																																										
59	Portulaca pilosa																																										
59	Polygala sp. (M23-2)																																										
60	Hakea lorea ssp. lorea																																										
60	Acacia inaequilatera																																										
60	Cassia glutinosa									1		1	1	1													1			2						1			1				
60	Corymbia hamersleyana																																			2			1				
60	Bulbostylis barbata										1																																
60	Mollugo molluginis																																										
60	Tephrosia supina																																										
60	Gossypium australe (Burrup Peninsula form)																																										
60	Cassia oligophylla												1			1																											
60	Eriachne mucronata	1										1																									1						
60	Cassia venusta											1	1																														
60	Solanum phlomoides																																										
60	Rhynchosia cf. minima		1								1		1	1	1				1	1		1	1	1		6	1					2				1	1	1	1	2		1	
60	Indigofera trita			1														1	1		1	1	1											2			1	1			1		1
60	Chrysopogon fallax			1																						3										2	1			1			
60	Cassytha capillaris							1	1	1																															1		1
60	Cleome viscosa			1							1			1								1	1			2		1		1	1			1	1	1	1		1	1	1		1
60	Phyllanthus maderaspatensis var. angustifolius										1	1		1					1		1			1		1	1					1		2	2	1	1	1	1	1	1		
60	Trichodesma zeylanicum			1					1									1			1		1	1		1	1				1			2	2	1	1				1		1
60	Solanum horridum																					1				2	1	1	1	1				2		1		1			1		1
60	Pterocaulon sphacelatum								1	1		1										1	1						1					1	2				1		1		
60	Cenchrus ciliaris															1	4									8						3		1		1	1	1	1	1	1		
60	Acacia bivenosa																		1								1							1						1	1	1	
60	Cymbopogon ambiguus	1			2			5	4		2	1	1		1					1					1		1			1	2	2	2			1	1	1				1	1

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60	Acacia coriacea		1		1	1	1	1	7	1																4	6	4	3	3		2	3	2	4	1	1	1	1	1	1		1
60	Grevillea pyramidalis		1					1																												1		1	1	1		1	
60	Boerhavia gardneri		1					1		1		1														2				1													1
60	Aerva javanica						1												2							4			0	1						1		1			1		
60	Indigofera colutea																																										
60	Indigofera linifolia																																	1							1		
60	Euphorbia coghlanii													1									1																				
60	Swainsona formosa																																	1							1		
60	Crotalaria novae-hollandiae subsp. novae-hollandiae																																										
61	Urochloa sp. "glabrous apices"																																										
61	Cullen leucanthum (Cape Preston form; M59.9)																																										
61	Chenopodium melanocarpum																																										
61	Sauropus trachyspermus																																										
62	Cynanchum sp. (1)																																										
62	Argemone ochroleuca subsp. ochroleuca																																										
62	Datura leichhardtii																																										
62	Nicotiana rosulata subsp. rosulata																																										
62	Glinus lotoides																																										
62	Citrullus colocynthis																																										
63	Dichanthium fecundum																																										
63	Ammannia multiflora																																										
64	Najas tenuifolia																																										
64	Vallisneria spiralis																																										
64	Echinochloa colona																																										
64	Eragrostis crateriformis																																										
65	Polymeria aff. calycina																																										
66	Urochloa gilesii subsp. occidentalis																																										
67	Perotis rara																																										
67	Citrullus lanatus																																										
68	Triumfetta appendiculata (Whim Creek form)											1																															
68	Mukia aff. maderaspatana (4) (green not scabrid)																																										
68	Euphorbia aff. drummondii (MET 15 030)																																										
68	Triodia longiceps																																										
68	Eriachne sp. aff. festucacea																																										
68	Eleocharis geniculata																																										
68	Stylidium fluminense																																										
68	Lotus australis																																										
68	Centaurium spicatum																																										
68	Lobelia quadrangularis								1																																		
69	Peplidium sp. E (Flora of Australia)																																										
69	Cenchrus echinatus																																										
69	Melaleuca linophylla																																										
69	Schoenoplectus litoralis								1																																		
69	Melaleuca argentea																																										
69	Melaleuca glomerata																																										
69	Eucalyptus camaldulensis var. obtusa																																										
69	Acacia ampliceps																																										
69	Typha domingensis																																										
69	Fimbristylis elegans																																										
69	Fimbristylis littoralis																																										
69	Eriachne tenuiculmis																																										
69	Cyperus vaginatus																																										
69	Stemodia grossa								1																									1									
69	Sesbania cannabina																				1																						
69	Ammannia baccifera																																										
69	Pluchea rubelliflora																																										
69	Cyperus bifax																																										
69	Eucalyptus victrix																										3																
69	Terminalia canescens	2		2		2	3			3	4	3	5	1	6	1	3																4										
69	Amaranthus pallidiflorus																														2												
69	Polymeria ambigua								1																																		
70	Potamogeton tricarinatus																																										
70	Setaria dielsii																																										
70	Basilicum polystachyon																																										

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70	Hibiscus panduriformis																																										
70	Cyperus difformis																																										
70	Alternanthera angustifolia																																										
70	Ludwigia perennis																																										
70	Bergia pedicellaris																																										
70	Ipomoea plebeia																																										
71	Eragrostis cumingii														1																												
71	Eragrostis tenellula																																										
71	Goodenia lamprosperma																																										
71	Cyperus squarrosus																																										
71	Fimbristylis microcarya																																										
71	Ammannia auriculata								1																																		
71	Ipomoea coptica																																										
71	Flaveria australasica																																										
72	Ruppia sp.																																										
72	Dysphania kalpari																																										
73	Amyema sp. aff. bifurcata																																										
73	Calandrinia ptychosperma																																										
73	Calandrinia quadrivalvis																																										
74	Amaranthus aff. mitchellii						1																																				
74	Sonchus oleraceus								1																																		
74	Digitaria ammophila																																										
74	Diplachne fusca																																										
74	Cynodon dactylon																																										
74	Sesbania formosa																																										
74	Pseudognaphalium luteo-album																																										
74	Nicotiana occidentalis subsp. obliqua																																										
74	Bergia trimera																																										
75	Hibiscus aff. platychlamys (M35.11)																																										
75	Euphorbia sp. (M80-1)																																										
75	Euphorbia schultzii																																										
76	Crotalaria medicaginea (Cape Preston form; M63.12)																																										
76	Atriplex bunburyana																																										
76	Capparis umbonata																																										
77	Cymbopogon obtectus																																										
77	Acacia marramamba																																										
77	Stackhousia muricata																																										
77	Diplopeltis eriocarpa																																										
77	Ptilotus calostachyus var. calostachyus																																										
78	Triumfetta cf. propinqua (B13-13)																																										
78	Tephrosia aff. densa (B16-22)																																										
78	Tephrosia aff. supina (HD133-20)																																										
78	Crotalaria trifoliastrum																																										
78	Hibiscus sturtii var. platychlamys																																										
78	Cullen pustulatum																																										
78	Acacia colei x elachantha																																										
78	Sida aff. cardiophylla (B22-37)																																										
78	Euphorbia sp. (B34-11)																																										
78	Tephrosia aff. clementii (5)B184																																										
78	Acacia stellaticeps																																										
78	Euphorbia drummondii																																										
79	Leptochloa fusca subsp. fusca																																										
79	Minuria integerrima																																										
79	Sida aff. fibulifera (B235-7)																																										
79	Dentella asperata																																										
80	Sida aff. fibulifera (D109)																																										
80	Enneapogon polyphyllus																																										
81	Amaranthus aff. pallidiflorus (WC148-11)											1	1																														
81	Polycarpaea longiflora (Whim Creek form, WC147-7)												1																														
81	Solanum petrophilum									1	1		1	1																													
81	Gossypium australe (Whim Creek form)									2	1	1	1																														
81	Carissa lanceolata									4	1	1	1																														
81	Paspalidium tabulatum (Whim Creek form)	1		1							2	1	1	1	1	1																											
81	Aristida nitidula										6	3	3	1	2																												

81	Triodia angusta																																										
81	Hibiscus goldsworthii	1											1																														
82	Sida sp. Wittenoom (W.R. Barker 1962)																																										
82	Eremophila cuneifolia																																										
83	Rhynchosia minima																																										
83	Enneapogon intermedius																																										
83	Hibiscus coatesii																																										
84	Sida aff. fibulifera (M100.22)																																										
84	Euphorbia sp. (M100-4)																																										
84	Amaranthus sp. (M100-2)																																										
84	Triraphis mollis																																										
85	Euphorbia sp. (G133-2)																																										
85	Scaevola anchusifolia																																										
85	Euphorbia sp. (BPBS2)																																										
85	Ptilotus villosiflorus																																										
85	Spinifex longifolius																																										
85	Scaevola crassifolia																																										
85	Scaevola cunninghamii																																										
85	Cleome sp. Burrup (B159-5)																																										
85	Maireana melanocoma																																										
85	Whiteochloa airoides																																										
85	Euphorbia sp. (D105-1)																																										
85	Atriplex isatidea																																										
85	Swainsona pterostylis																																										
85	Threlkeldia diffusa																						1																				
85	Sesuvium portulacastrum																																										
86	Abutilon aff. lepidum (5)															1																											
86	Indigastrum parviflorum (Whim Creek form; W138-3)																																										
86	Tephrosia aff. clementii (2)																																										
86	Triodia aff. basedowii																																										
86	Eriachne helmsii																																										
86	Corchorus parviflorus																																										
86	Euphorbia aff. australis var. 1 (MET 12 337)																																										
86	Diplatia grandibractea																																										
86	Sida aff. fibulifera (felty edges; site 655)																																										
86	Acacia sphaerostachya																																										
86	Trianthema pilosa																																										
86	Mukia aff. maderaspatana (1) (grey scabrid rounded)						1																																				
86	Melhania oblongifolia						1																																				
86	Abutilon cryptopetalum																																										
86	Boerhavia repleta																																										
86	Cucumis melo																																										
86	Scaevola scabrida																													4													
86	Hibiscus platychlamys																																										
86	Sclerolaena cornishiana																																										
86	Lotus cruentus																																										
86	Sclerolaena hostilis																																										
86	Eragrostis exigua																																										
86	Hibiscus aff. coatesii (site 751)																																										
86	Acacia cowleana																																										
86	Euphorbia aff. australis																																										
86	Tephrosia rosea var. glabrior																																										
86	Cassia sp. Karajini (MET 10 392)																																										
86	Abutilon sp. B																																										
86	Aristida burbidgeae	1	3																																								
86	Cyperus ixiocarpus			1																																							
86	Scaevola acacioides	1		1																																							
86	Clerodendrum floribundum var. angustifolium	2	3		3	1																																					
86	Sida sp. (Site 1447)																																										
86	Vigna sp. Harding Dam (HD189-12)																																										
86	Corchorus aff. sidoides (HD179-5)																																										
86	Rhynchosia sp. Chichester (MET 15 225)																																										
86	Euphorbia aff. coghlanii (M61-11)																																										
86	Swainsona complanata																																										

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86	Dissocarpus paradoxus																																										
86	Lawrencia viridigrisea																																										
86	Frankenia pauciflora var. pauciflora																																										
86	Hemichroa diandra																																										
86	Halosarcia indica subsp. leiostachya																																										
86	Frankenia ambita																																										
86	Muellerolimon salicorniaceum																																										
86	Avicennia marina																																										
86	Halosarcia pterygosperma subsp. denticulata																																										
86	Eragrostis falcata																																										
86	Neobassia astrocarpa																																										
86	Halosarcia halocnemoides subsp. tenuis																																										
86	Halosarcia pruinosa																																										
86	Sporobolus virginicus																																										
87	Trianthema aff. kimberleyi (MET 15 060)																																										
87	Goodenia sp. (site 92)																																										
87	Goodenia muelleriana																																										
87	Acacia pyrifolia (stout form)																																										
87	Acacia synchronicia																																										
87	Sida aff. cardiophylla (site 241)																																										
87	Hibiscus burtonii																																										
87	Cynanchum sp. (MET 15 151)																																										
87	Clerodendrum sp.																																										
87	Cullen leucanthum																																										
87	Euphorbia tannensis subsp. eremophila																																										
87	Acacia sp. (site 1149)																																										
87	Hibiscus aff. coatesii (MET 15 305)																																										
87	Tribulus macrocarpus																																										
87	Bonamia rosea																																										
88	Acacia paraneura																																										
89	Eragrostis sp. Mt Montagu (MET 15 246)																																										
89	Schoenus falcatus																																										
89	Fimbristylis rara																																										
89	Acacia aff. morrisonii																																										
89	Fimbristylis cephalophora																																										
89	Bothriochloa bladhii																																										
89	Iseilema vaginiflorum																																										
89	Marsilea exarata																																										
89	Lipocarpha microcephala																																										
89	Amyema benthamii					1																																					
89	Abutilon lepidioicum					1																																					
89	Cyperus cunninghamii subsp. cunninghamii																																										
90	Eragrostis leptocarpa																																										
90	Wahlenbergia tumidifructa																																										
91	Sida aff. cardiophylla (M79.27)																																										
91	Yakirra australiensis																																										
92	Hibiscus leptocladus																																										
93	Sida aff. clementii (site 1137)																																										
94	Cullen stipulaceum																																										
95	Euphorbia australis (West Angelas site 1103)																																										
95	Polycarpaea longiflora (pale form)																																										
95	Oldenlandia sp. Mt Montagu (MET 15 027)																																										
95	Crotalaria medicaginea																																										
95	Trachymene oleracea								1																																		
95	Andrachne decaisnei																																										
95	Tephrosia rosea var. clementii							1	1																																		
95	Acacia pyrifolia (slender form)								1																																		
95	Acacia trachycarpa																																										
95	Cullen lachnostachys																																										
95	Tephrosia densa																																										
95	Hibiscus aff. platychlamys (MET 15 067)															1																											
95	Cassia notabilis																																										
95	Ptilotus astrolasius																																										
95	Indigofera rugosa																																										

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95	Corchorus sp.Millstream(A.S.George 3488)																																										
95	Streptoglossa adscendens			1																																							
95	Swainsona stenodonta							1																																			
95	Tribulus platypterus																																										
95	Indigastrum parviflorum																																										
95	Enneapogon caerulescens var. caerulescens																																										
95	Ptilotus incanus var. elongatus																																										
95	Mukia aff. maderaspatana (2) (grey scabrid serrate)			1	1																																						
95	Jacquemontia pannosa		1						1	1																																	
96	Sida aff. echinocarpa (MET 15 350)																																										
96	Polycarpaea longiflora																																										
96	Acacia pyrifolia																																										
96	Indigofera monophylla (grey leaflet form)							1		1																																	
96	Acacia holosericea							1	1	1																																	
96	Cymbopogon sp.					1																																					
96	Grevillea wickhamii																																										
96	Euphorbia wheeleri				1			1																																			
96	Acacia pyrifolia (bark not corky)																																										
96	Acacia aff. inaequilatera (MET 15 011)																																										
96	Fimbristylis dichotoma																																										
96	Acacia maitlandii																																										
96	Abutilon sp. A																																										
96	Triodia brizoides							1																																			
96	Eucalyptus leucophloia																																										
96	Goodenia cusackiana																																										
96	Triodia wiseana	1			1			6	2	1			1	1	1	1																											
96	Triodia epactia															1	1																										
96	Acacia arida																																										
96	Acacia monticola							1																																			
96	Acacia tumida																																										
96	Cullen leucochaites																																										
96	Corchorus lasiocarpus																																										
96	Salsola kali																																										
96	Ptilotus exaltatus																																										
96	Tephrosia sp.Cathedral Gorge(F.H.Mollemans 2420)																																										
96	Cullen cinereum																																										
96	Lepidium pholidogynum																																										
96	Tephrosia stipuligera																																										
96	Sida sp.A Kimberley Flora(P.A.Fryxell & L.A.Craven 3900)																																										
96	Triumfetta johnstonii																																										
96	Acacia acradenia																																										
96	Heliotropium skeleton																																										
96	Tephrosia uniovulata																																										
96	Cassia helmsii																																										
97	Polygala aff. isingii																																										
97	Oldenlandia crouchiana																																										
97	Eriachne pulchella subsp. dominii																																										
97	Cassia luerssenii																																										
97	Polycarpaea corymbosa var. corymbosa																																										
97	Ptilotus calostachyus																																										
97	Tribulus suberosus																																										
97	Polycarpaea holtzei																																										
97	Acacia ancistrocarpa												1																														
97	Corchorus laniflorus										1	1		1	1																												
97	Goodenia stobbsiana																																										
97	Petalostylis labicheoides																																										
97	Dodonaea coriacea																																										
97	Cassia pruinosa																																										
97	Hibiscus aff. coatesii (MET 15 012)																																										
97	Acacia tenuissima																																										
97	Sida cardiophylla																																										
97	Triumfetta maconochieana							1				1																															
97	Heliotropium tenuifolium																																		1								
97	Eragrostis aff. eriopoda																																										

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97	Sida echinocarpa																																										
97	Corchorus sidoides															1																											
98	Tripogon loliiformis var. (2)																																										
98	Acacia bivenosa (wispy form)																																										
98	Cheilanthes lasiophylla																																										
98	Ptilotus rotundifolius																																										
98	Heliotropium ovalifolium																																										
98	Goodenia triodiophila																																										
98	Olearia stuartii																																										
98	Pterocaulon serrulatum																																										
99	Themeda aff. triandra																																										
99	Capparis lasiantha																																										
99	Acacia pruinocarpa																																										
99	Dodonaea pachyneura																																										
99	Rulingia kempeana																																										
99	Lobelia heterophylla																																										
99	Corymbia deserticola																																										
99	Eremophila latrobei subsp. glabra																																										
100	Crotalaria ramosissima																																										
100	Bonamia media var. ?media																																										
100	Sida aff. fibulifera (M69.12)																																										
100	Setaria surgens																																										
100	Ptilotus polystachyus																																										
100	Abutilon otocarpum																																										
100	Dolichandrone heterophylla																																										
100	Heliotropium foliatum																																										
100	Gomphrena sordida																																										
100	Urochloa holosericea subsp. velutina																																										
100	Cyperus blakeanus																																										

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448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465
BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN
B066	B082	B192	B195	B232	B052	B026	B044	B163	B059	B072	B078	B154	B035	B173	B174	B080	B160
rpv	rpv	rp	rp	rp	rpv	rpr	rpr	dn	rpr	rp	rp	rp	rp	rp	sr	rp	rp
40	44	36	44	27	31	26	29	31	25	25	25	23	26	29	24	29	23
44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
164	164	164	164	164	164	164	164	164	164	164	164	164	165	165	165	165	165
448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465
	1		1		1											1	

466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483
DOLISL	DOLISL	DOLISL	DOLISL	DOLISL	DOLISL	DOLISL	DOLISL	DOLISL	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN
D100	D108	D089	D087	D114	D106	D094	D103	D125	B039	B183	B055	B056	B084	B182	B085	B093	B079
rp	rp	rpv	rpv	rp	rpr	rpr	rpr	rp	dnr	rpv	smr	dnr	rpv	rp	smr	dnr	smr
					y	y	y										
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B169	B090	B091	B045	B046	HD177	HD178	HD180	HD207	HD208	HD209	KH211	KH212	HD191	HD206	HR201	HR203	HR202
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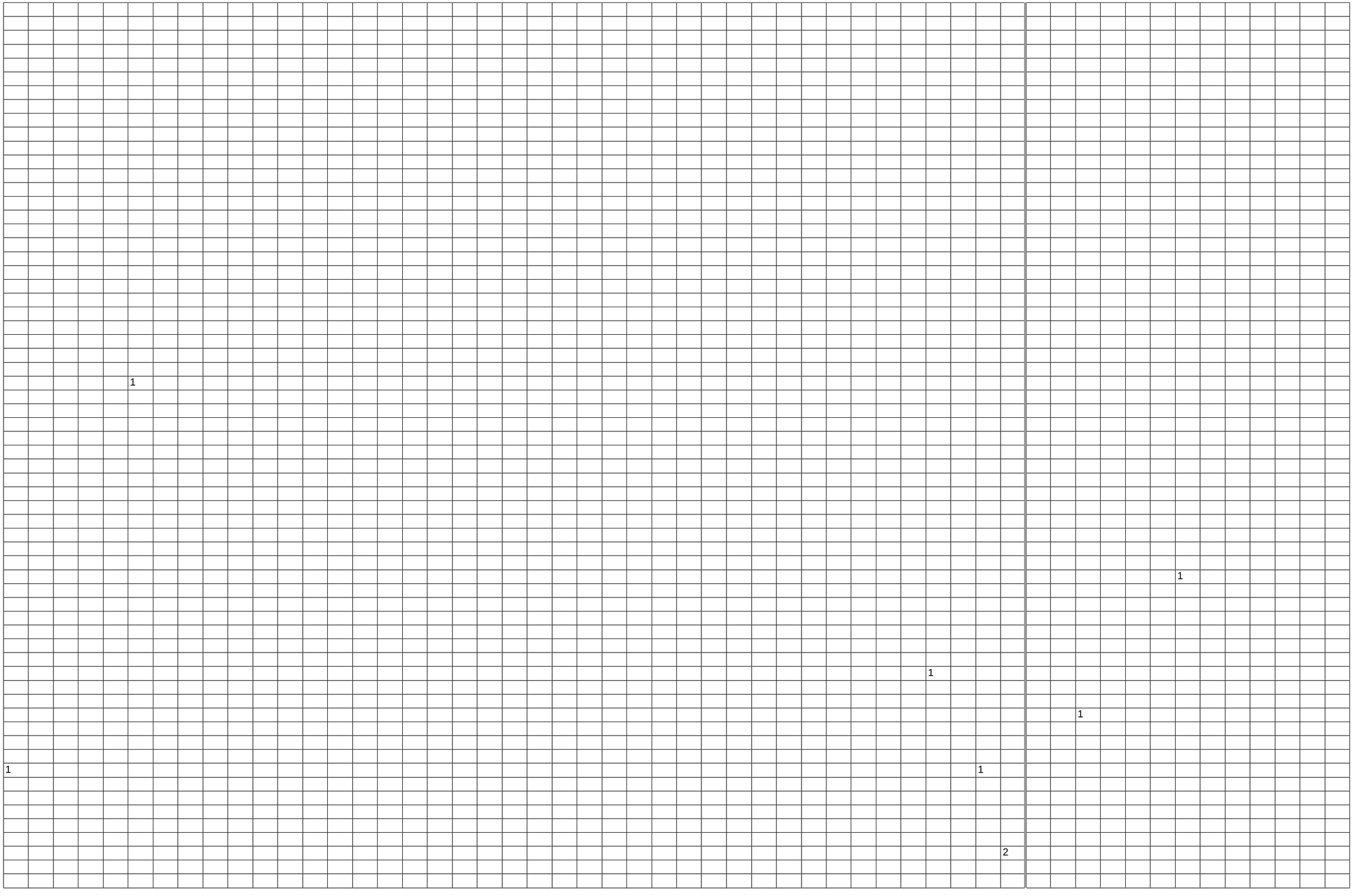
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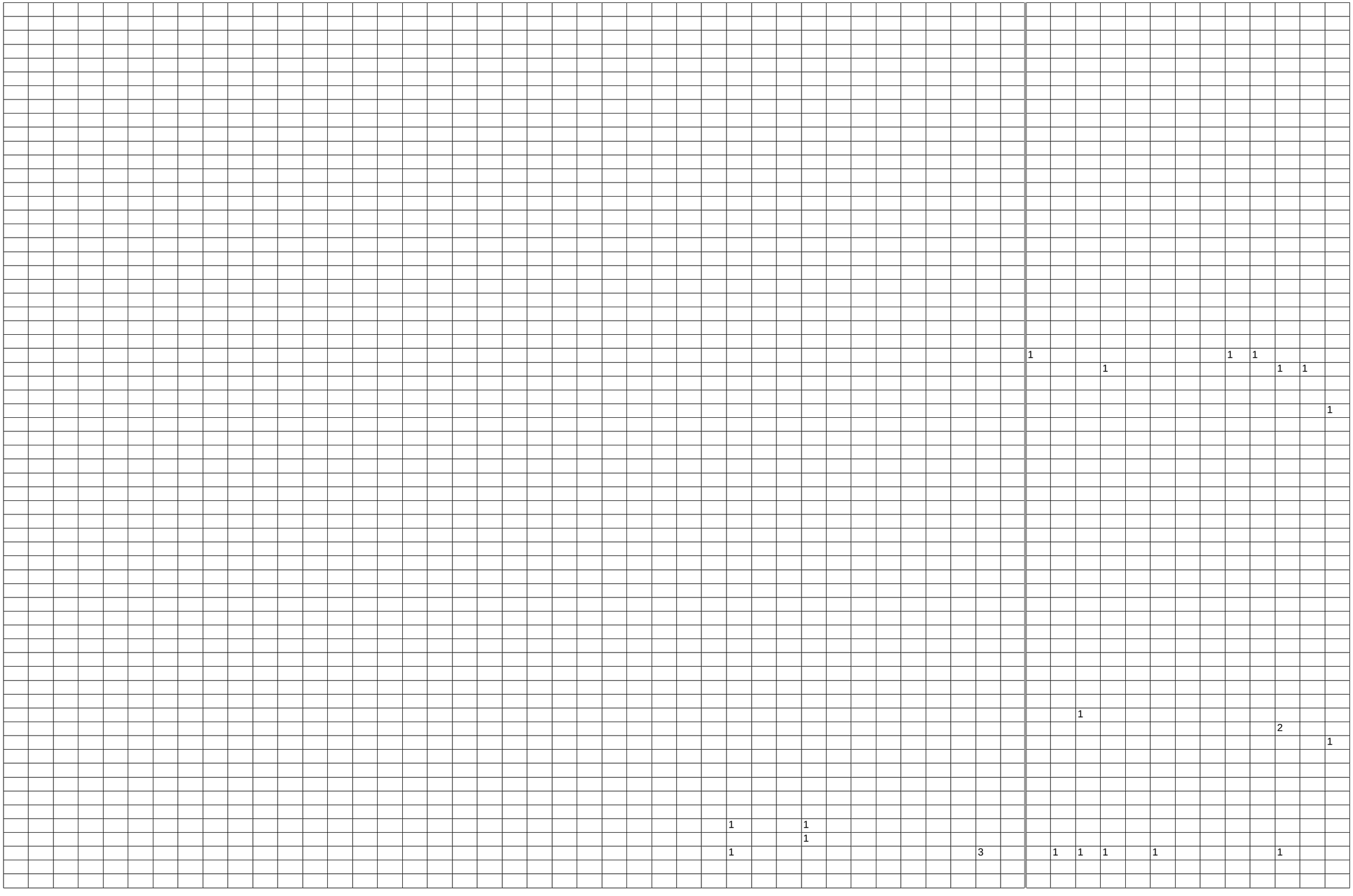
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Appendix 3: Sheet 3 Page 25

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HD188	HD200	HD190	A113	G143	A126	A120	G136	G130	B186	B187	B001	B004	B166	B024	B083	B041	B022
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BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	DOLISL	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	DOLISL	BURPEN	BURPEN	BURPEN	BURPEN
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BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN	BURPEN
B012	B016	B013	B048	B070	B073	B076	B068	B069	B096	B157	B011	B162	B181	B053	B185	B191	B054
slr	smr	dn	str	scr	sr	sms	dn	dn	ss	sr	dn	dns	dn	sls	dns	dns	sls
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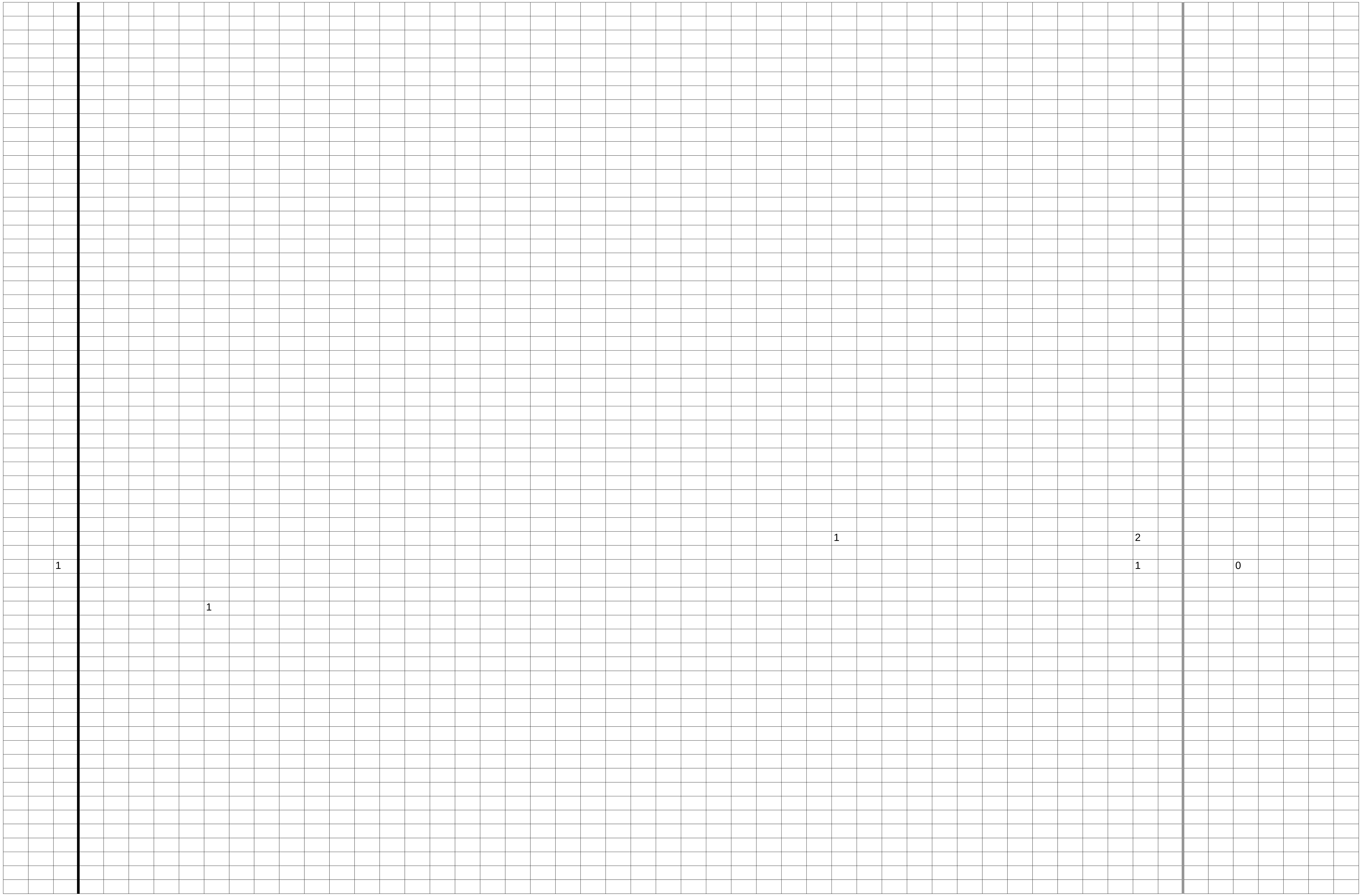
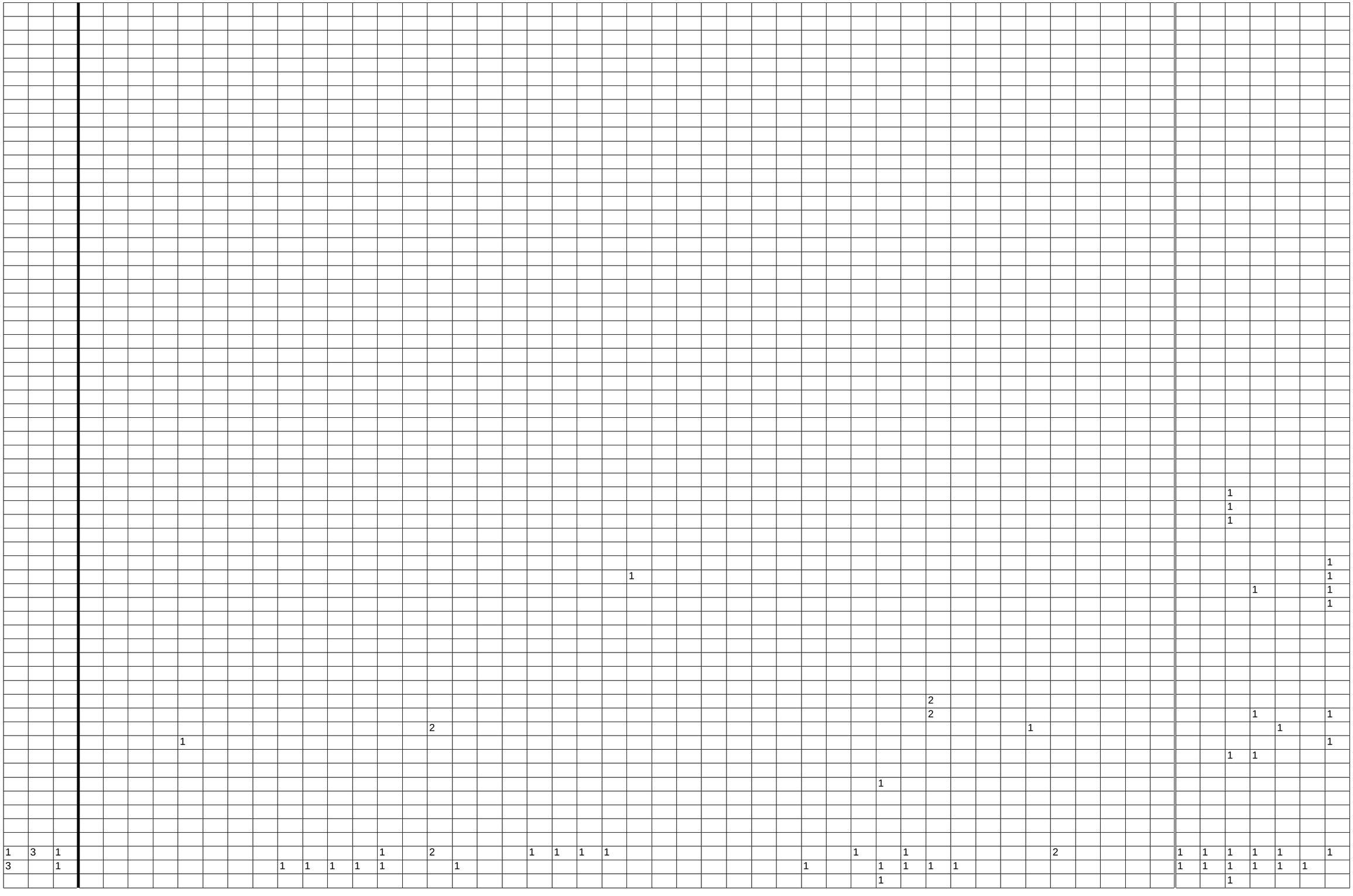
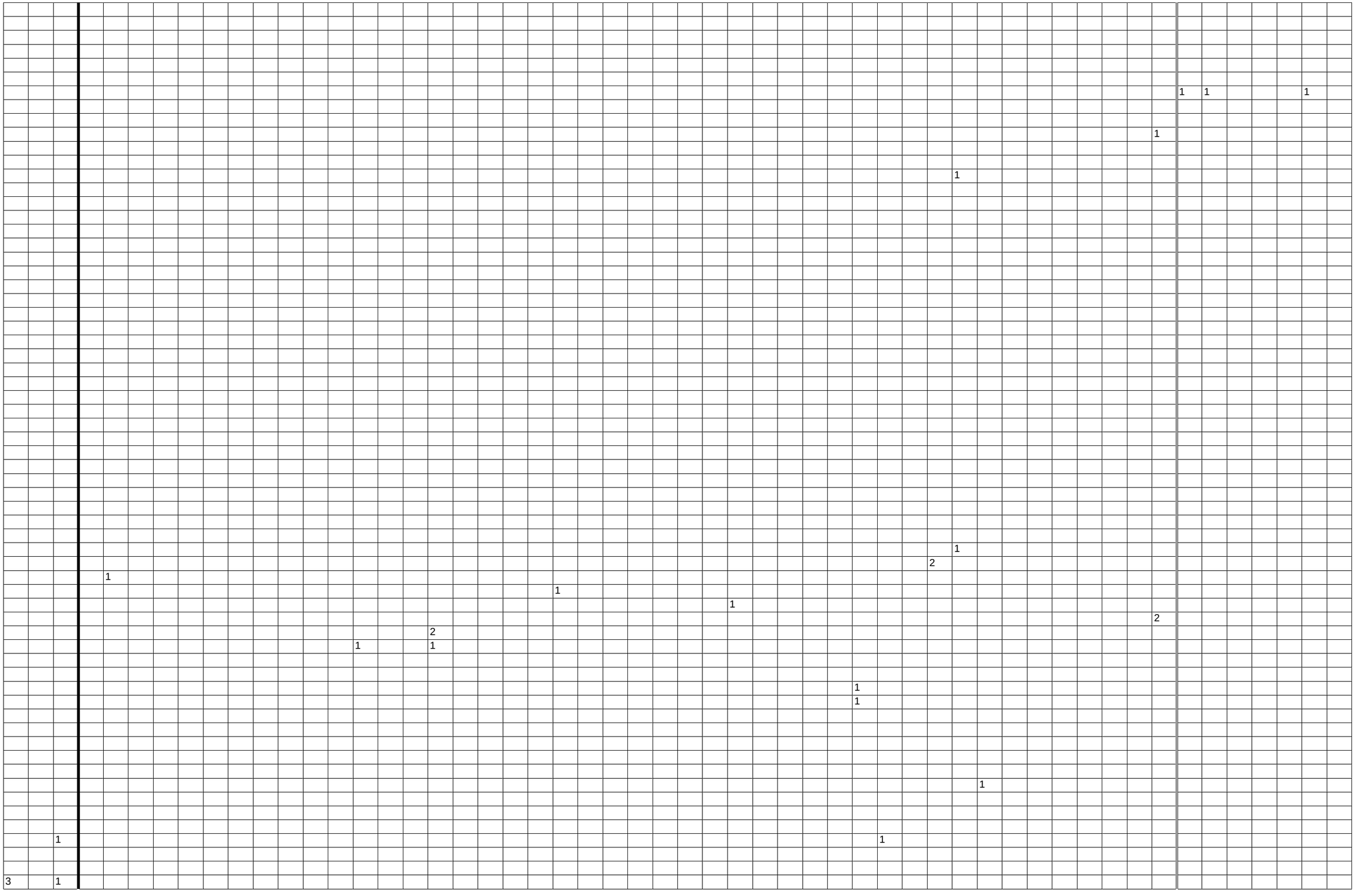
Appendix 3: Sheet 3 Page 27



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Appendix 3: Sheet 3 Page 33

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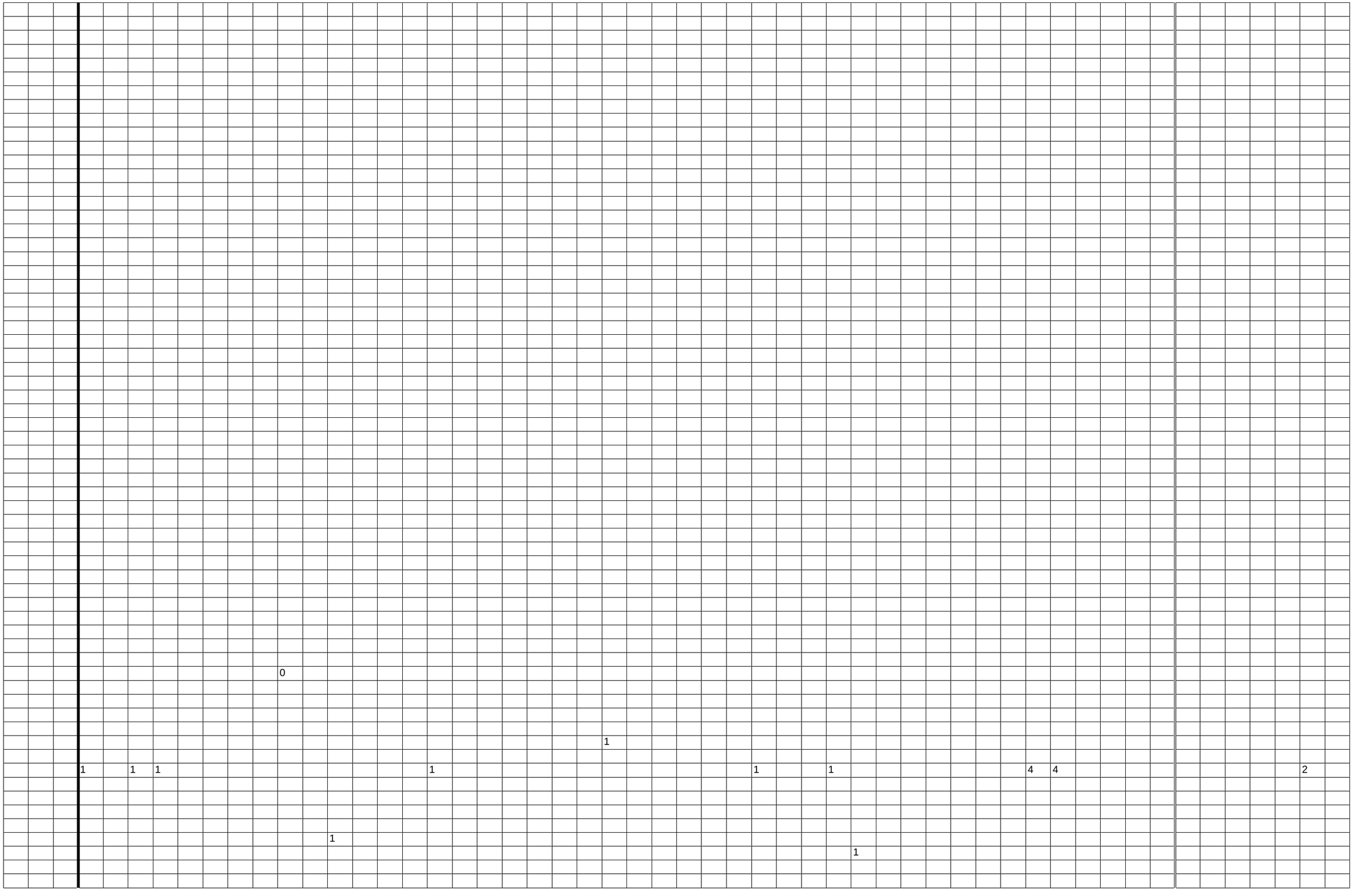
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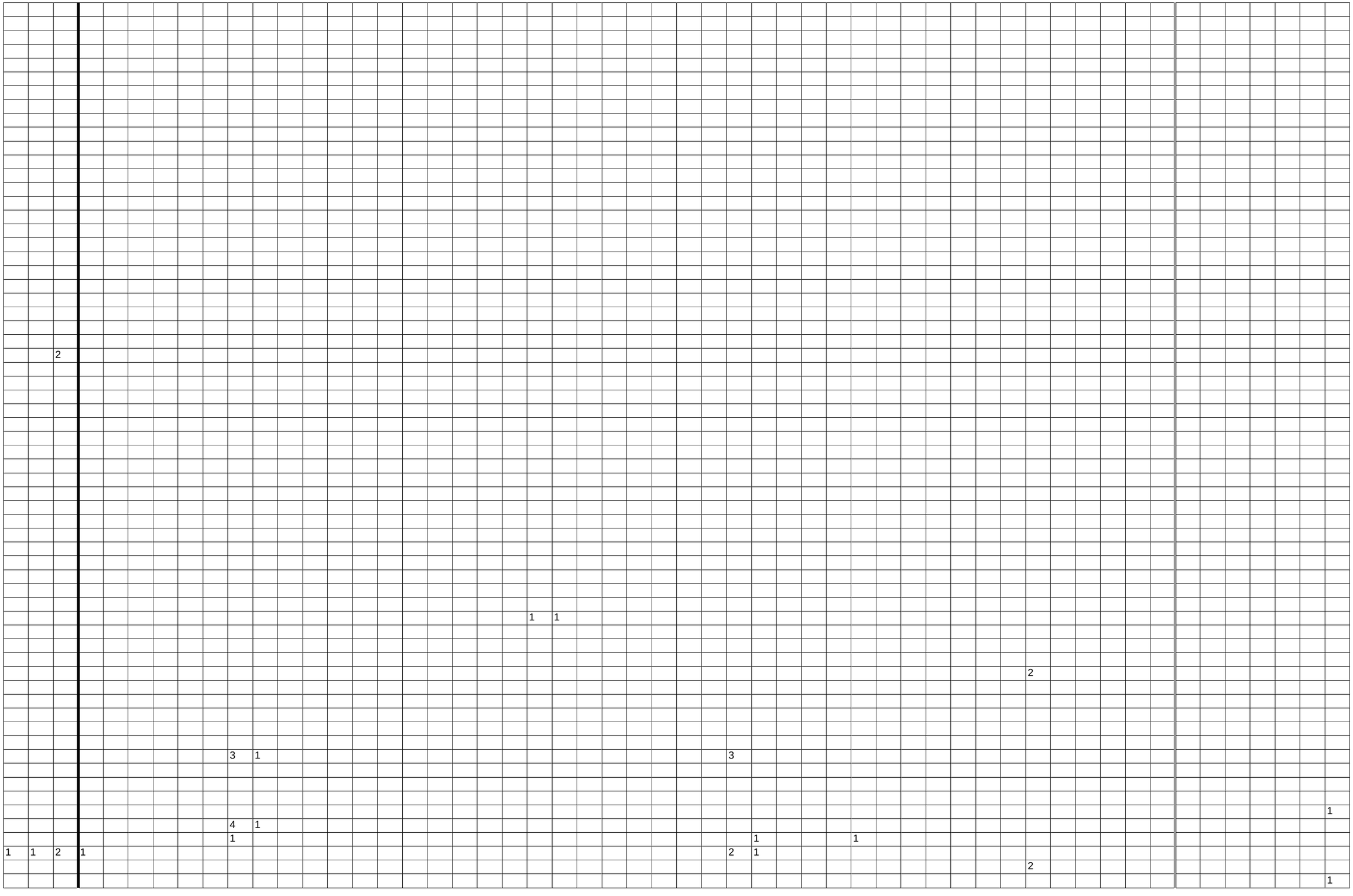
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ANGELISL	BURPEN	CAPPRE	CAPPRE	BURPEN	BURPEN	CAPPRE	BURPEN	BURPEN	DOLISL	DOLISL	BURPEN
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B005	B017	B060	B040	B081	D088	B193	B062	D109	B007	B042	B021	B008	B167	B015	B230	B020	B152	B237	B036	B058	B220	D095	D115
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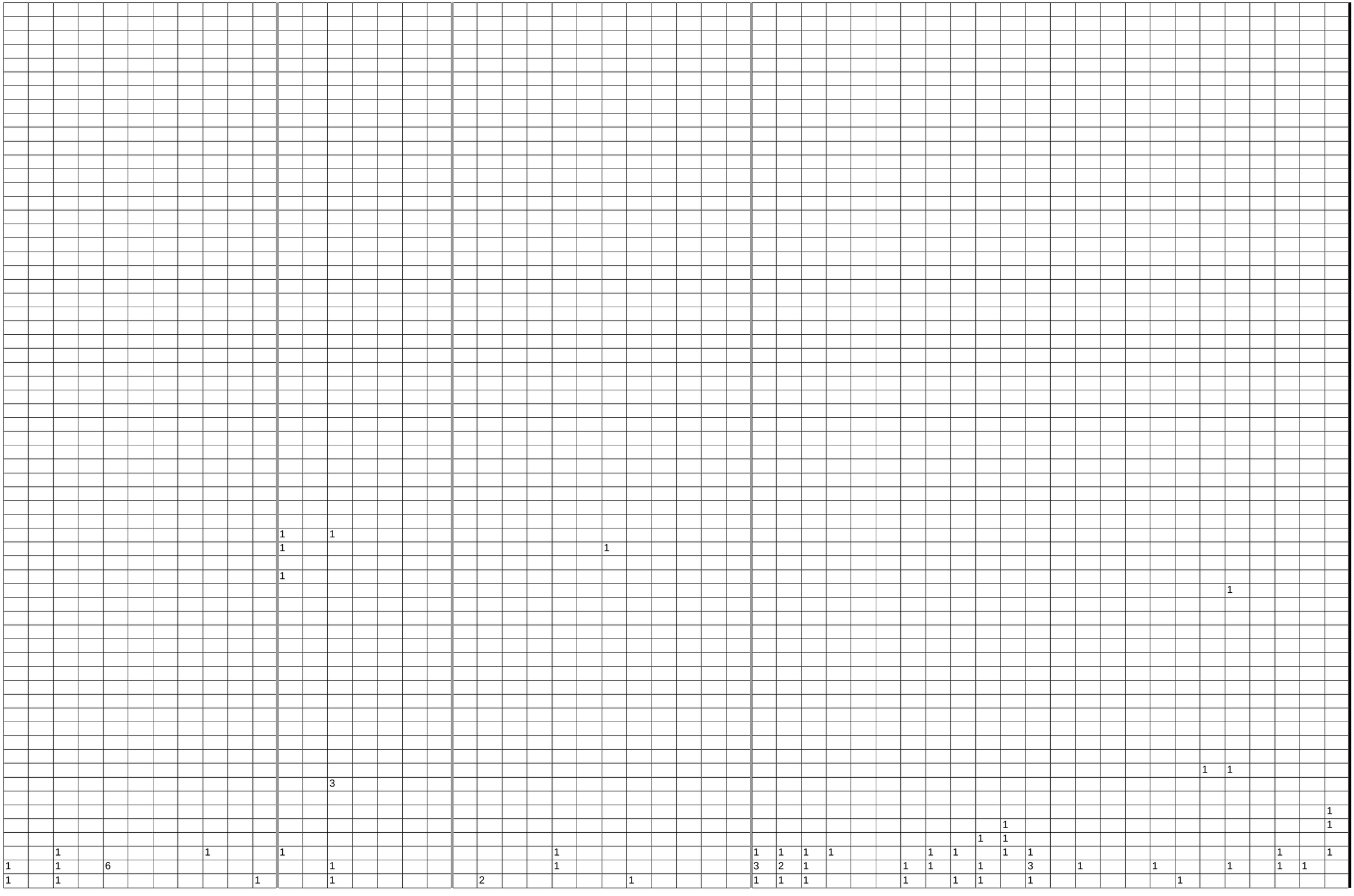

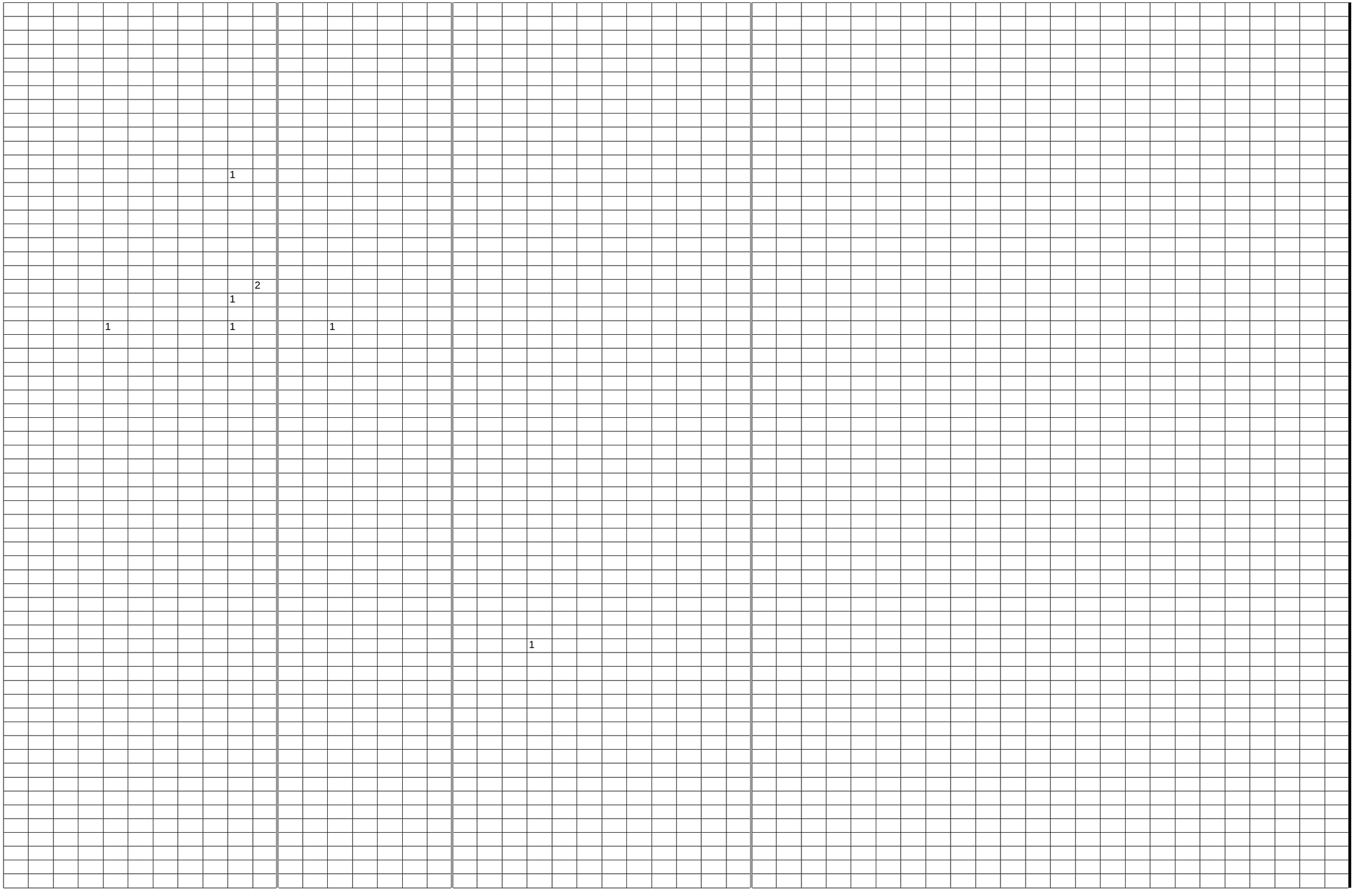
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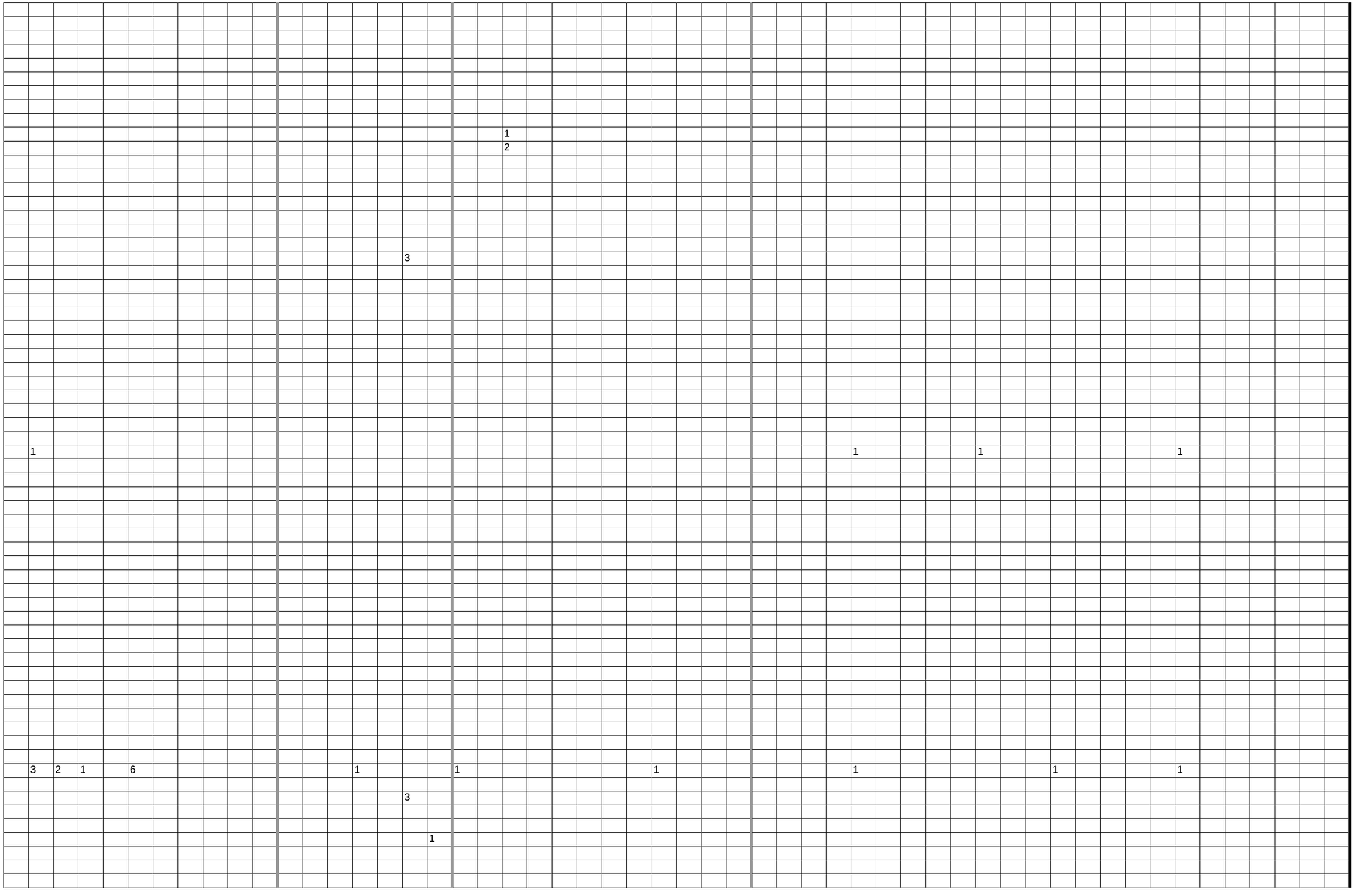
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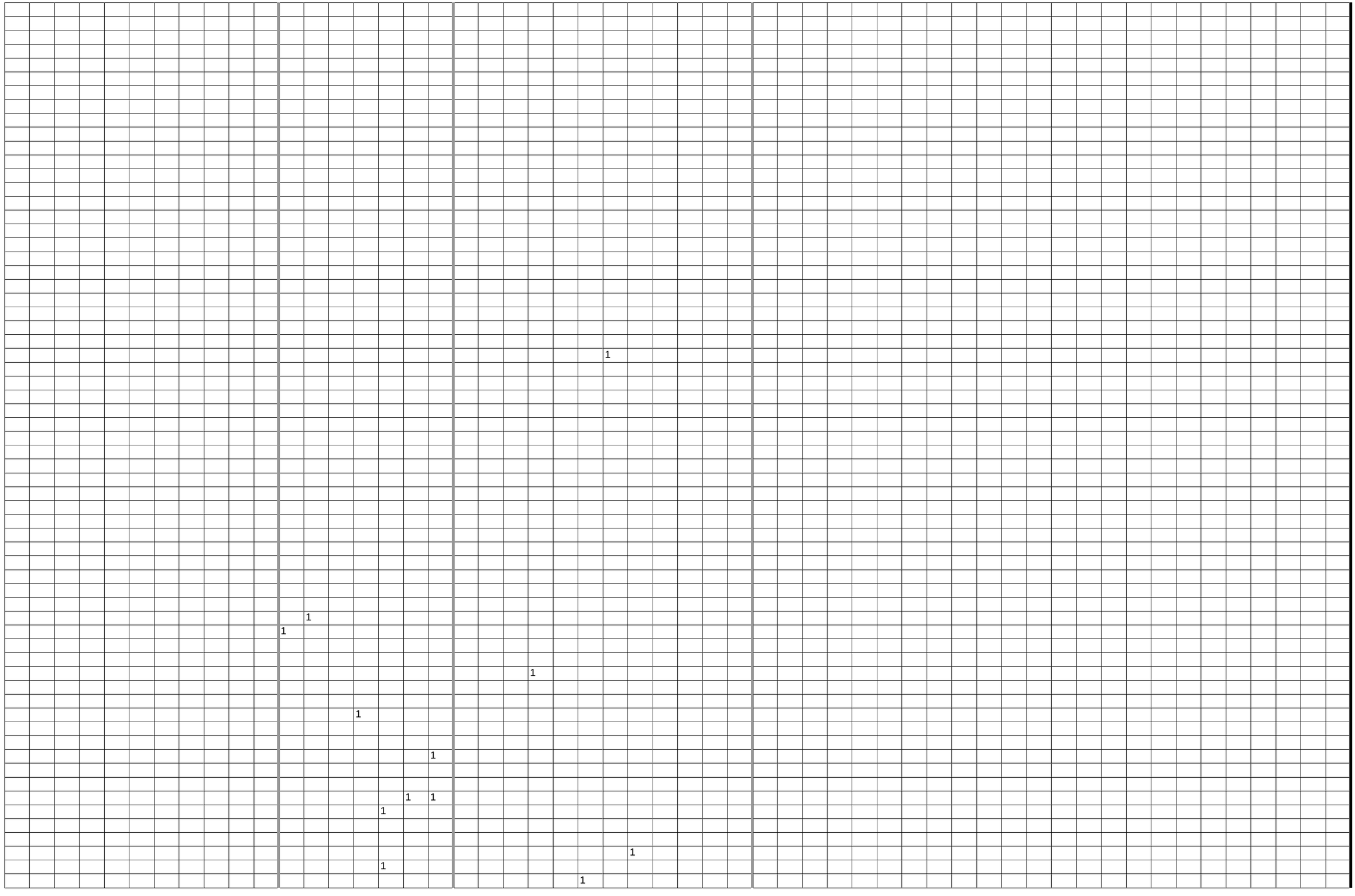

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