**Appendix 17 Data for Quadrat/site Group Classification Lyons et al (2004)** A2 in the Lyons report has been changed to A1 here after the map provided on p 7 of this report. A- Avon Wheatbelt , M - Mallee, GS - Geraldton Sandplain , Y – Yalgoo, C – Coolgardie, ES – Esperance plains. IBRA sub-regions (From Environment Australia, 2000 in Lyons et al 2004)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Group** | **Number of quadrats** | **Mean and SD** **% gypsum** | **Site description** | **Characteristic species** | **Mean ELCODE** | **Location** | **Comments** |
| **Woodlands and shrubs of lunettes, inter-wetlands flats and rises – predominantly inland saline systems** |  |
| 1.6 | 7  | 21.8637.33 | *Darwinia* sp. Karonie shrublandsDunes of inland saline pans and playas  | *Alyxia buxifolia,* *Darwinia* sp. karonie | 3.4 | Inland 4A12M21GS3 | 2 out of 7 quadrats very high EC and gypsum content.Small heterogeneous groupof quadrats |
| 1.8 | 39 | 3.5913.68 | Elevated chenopod shrublands on high EC sites. Eastern side of saline playas that have accumulated evaporates from lake bed.  | 38% taxa/quadrat introduced*Atriplex vesicaria,* *A paludosa,* *Podolepis tepperi,* *Pogonolepis muelleriana,* *Eucalyptus kondininensis* (small no) | 3.1 | 1A2 15A1 22M21C | 9 quadrats out of 39 contained gypsum% gypsum mean and SD low |
| **Chenopod dominated berms, beaches, and gypsum flats of natural and degraded primary saline wetland** |  |
| 3 | 11 | 53.6447.85Range 11-97% | Low dunes, heaves and berms with high EC and pH.1 disjunct quadrat in M2 on large lunette with high pH – no gypsum and fine textured soils | *Chondropyxis halophila,* *Rhodanthe heteranthera,* *Asteridea athrixioides,* *Atriplex halocarpa.* Northern quadrats on raised beds 92-97% gypsum-*Halosarcia* sp. Lake Moore (*Tecticornia loriae*), *Chondropyxis halophila,* *Frankenia conferta,* *Triglochin lyonsii ms* | 2.7 | 9A11M21Y | 9 quadrats out of 11 contained gypsum. Northern - species poor *Tecticornia* shrubs Characteristic species commonlyoccur on non gypsum soils |
| 5 | 7 | 6.1610.52 | Species poor beaches of degraded saline wetlands high EC and low pH dominated by *Melaleuca* shrublands. Margins of degraded saline lakes at low elevations subject to inundation. | *Melaleuca thyoides,* *M. halmaturorum,* *Tecticornia lylei* | 2.1 | 6A11M2 | Only 7 quadrats. % gypsum mean and SD low |
| 6 | 4 | 54.2542.76 | Gypseous berms of southern playas, high mean EC and presence of gypsum. | Species poor – *Tecticornia moniliformis,* *Austrostipa juncifolia,* *Triglochin nanum,* *Maireana oppositifolia**Callitris glaucophylla* shrubland on low non-gypseous sands within Lake King –*Tecticornia moniliformis,* *Austrostipa juncifolia*,  | 2.5 | 2M12M2 | Small group species poor quadrats and shared *Tecticornia moniliformis*Characteristic species commomly occur on non gypsum soils*.* |
| 7 | 10 | 52.745.17 | Gypsum flats subject to inundation. High EC and high mean substrate pH.  | Species poor *Tecticornia halocnemoides* | 1.9 | 6A1, 2M1, 2M2 | Small group. 7 quadrats out of 10 contained gypsum. Species poor and *Tecticornia halocnemoides* commonly occurs on non gypsum soils |
| **Species rich strands, berms and low sandy ridges of naturally saline and degraded sub-saline/saline wetlands** |  |
| 8.1 | 60 | 7.15 20.71 | Sandy and gypseous beaches, berms and low flats of saline pans and playas. High mean EC and pH relative to group 8.2. Weeds – degraded areas, | \**Parapholis incurva,* *\*Sonchus oleraceus,* *Triglochin mucronata,* *Atriplex holocarpa,* *Cotula cotuloides,*  High INDVAL scores – *Tecticornia peltata,* *Gunniopsis septifraga**Triglochin mucronata,* Gypseous beaches, berms in N study area – *Fitzwillia axilliflora,* *Neosciadium glochidiatum* *Frankenia conferta* | 2.2 | 1A238A19M25GS27GS3 | Variable amount of gypsum (0-99%) with % gypsum mean and SD low |
| 8.2 | 33 | 1.869.44 | Sandy berms and low rises of saline pans and playas. Similar elevation to 8.1 show lower mean substrate EC, pH and clay content to 8.1. Double species richness to 8.1 | *Centrolepis humillima,* *Angianthus micropodioides,* *Centrolepis eremica,* *Gnephosis tridens,* *Atriplex hymenotheca.* *Subset – Sarcocornia globosa,* *Roycea pycnophylloides,* *Tecticornia sp. Central wheatbelt,* *Frankenia bracteata* | 2.4 | 22A18M22C1Y | % gypsum mean and SD low. Threatened by increased flooding associated with drylandsalinity |
| 9.2 | 28 | 19.9334.41 | Gypseous beaches, berms of southern playas and pans and coastal salt lakes. High pH and EC mostly contain gypsum. Quadrats occur at margins (mean ELCODE 2.4) | *Hydrocotyle medicaginoides, Brachyscome exilis,* *Tecticornia syncarpa,* *Isotoma scapigera,* *Tecticornia uniflora,* *Austrostipa juncifolia,* *Goodenia salina,* *Frankenia tetrapetala,* *Haegiela tatei,* *Vellea exigua*  | 2.4 | Southern and coastal1A11A23M114M25GS32 ES12ES2 | 19 quadrats out of 28 occur in the study area – coastal areas not included in this project. *Goodenia salina* Possible gypsophile. |