**Appendix 18 Data for species Assemblages Lyons et al (2004)**

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| **Assemblage** | **Number Species confined to wetland habitats** | **Number of species recorded on gypsum** | **Soils and Topography** | **Comments** | **Characteristic species** | **Location**  **Bioregions** |
| 1.2 | 14 out of 43 | 26 out of 35  74% | Inland primary salt lake systems and associated valley floors. Richest on fine textured calcareous and gypseous soils.  Moderate to high ELCODE not subject to inundation | Several taxa are associated with gypsum substrates *Goodenia* sp. Lake King (*Goodenia salina)* and *Kippistia suaedifolia* | *Goodenia* salina  *Kippistia suaedifolia*  *Asteridea athrixioides Hemichroa diandra*  *Sondottia connata*  *Eucalyptus flocktoniae Maireana appressa* | Avon Wheatbelt Mallee  Yalgoo Coolgardie |
| 2.6 | 8 out of 10 | 5 out of 9  55% | Gypsum and saline clay substrates on margins, or on centrally raised beds, of inland saline playas and pans.  % gypsum was a significant term in the GLM model | Small group taxa  Species poor stands  Several undescribed species known from few localities. | *Frankenia* sp. southern gypsum *Halosarcia* sp. lake Moore (*Tecticornia loriae)*  *Triglochin lyonsii* ms  *Hydrocotyle hexaptera* ms  *Chondropyxis halophila*  *Trichanthodium exile* | Avon Wheatbelt Mallee  Yalgoo  Coolgardie |
| 3.2 | 16 out of 21 | 18 out of 21  86% | Coastal and near coastal salt lakes and southern inland saline playas. Within wetlands taxa occupy berms and elevated flats, often of evaporate derived substrates. Moderate to high EC  ELCODE (intermediate wetland elevations) | *Austrostipa pycnostachya* also non-wetland. | *Austrostipa pycnostachya* *Wilsonia humilis*  *Hagiela tatei*  *Frankenia tetrapetala*  *Lawrencia glomerata*  *Tegicornia uniflora*  *Austrostipa juncifolia*  *Isotoma scapigera* | Coastal and southern near coastal wetlands.  Esperance sandplains  Southern Avon Wheatbelt  Mallee |
| 3.3 | 2/3 restricted to wetlands | 23 out of 24  96%  10 weeds | Primary and secondary saline/brackish and disturbed freshwater wetland edges.  Wetland margins  ELCODE 2 and 3 max richness % gypsum was a significant term in the GLM model | Widespread taxa included  Taxa not restricted to wetlands  \*Hordeum glaucum  \* Hordeum leporinum  \*Lolium sp | *Apium annum*  *\*Cotula bipinnata*  *Melaleuca halmaturorum*  *\*Parapholis incurva \*Spergularia rubra*  *Tecticornia doleiformis*  *Tecticornia indica* *Tecticornia quinqueflora*  *Triglochin mucronata* | Coastal and Wheatbelt |
| 4.1 | 22 out of 23 | 21 out of 23  91% | Sandy berms, strand lines and low sandy flats of inland primarily saline playas and braided saline drainage lines  ELCODE 2 and 3 max richness | Some northern taxa associated with Gypsum - *Frankenia conferta*  *Neosciadium glochidiatum*  7 species *Tecticornias* | *Tecticornia undulata*  *Tecticornia halocnemoides*  *Tecticornia peltata*  *Tecticornia pruinosa*  *Gunniopsis septifraga* | Wheatbelt into the adjacent arid zone. Subset N Avon wheatbelt |
| 4.2 | All | 4 out of 9  44% | Edges of channels in braided primary saline drainage lines, slightly elevated sandy rises and margins of primary saline playas and small pans. Seasonally leached sands rather than evaporate derived substrates (3.3) | Uncommon taxa | *Roycea pycnophylloides*  *Sarcocornia globosa*  *Tecticornia* sp. central wheatbelt  *Frankenia bracteata*  *Drosera zigzagia* | Avon Wheatbelt  Mallee |
| 12 | All | 1 out of 6  17% | Sandy margins of saline playas and braided drainage lines Similar habitat to 4.2 poorly known | *Millotia steetziana* recorded on gypsum | Undescribed taxa  *Tribonanthes minuta*  *Hypoxis salina*  *Calandrinia* sp. Hyden | Mallee  Esperance  Avon Wheatbelt  Jarrah forest |
| 16 | None restricted to wetlands | 11 out of 24  46%  3 weeds | Widespread on more fertile granitic soils, orange sandy loams and finer textured valley floor soils that are non saline. Around wetlands max richness occurred on dunes and flats. Dominated by terrestrial taxa | Dominated by widespread herbs | *Acacia acuminata*  *Eucalyptus loxophleba* subsp. *loxophleba*  *Gonocarpus nodulosus*  *Quinetia urvillei*  *Drosera glanuligera*  *Millotia tenuifolia*  *Dianella revoluta*  *Podolepis lessonii*  *Daucus glochidiatus* | Avon Wheat belt centre of taxa distribution |
| 17 | 5 out of 50 | 25 out of 50  50%  3 weeds | Preference for more fertile granite derived soils. Low EC. Moderate to high elevations | Typical of semi-arid Acacia, Eremophila and Melaleuca dominated shrublands and eucalypt woodlands. Wide spread lower rainfall non-wetland annuals and taxa specific to shrublands on lunettes and flats within salt lake systems | *Lawrencella rosea*  *Actinobole uliginosum*  *Sarcozona praecox*  *Podotheca pritzelii* | Avon Wheatbelt  Max richness in NE study area |
| 18 | 22% restricted to wetlands | 56 out of 68  82%  13 weeds | Most associated with saline and semi-saline habitats. Margins of naturally saline playas and braided drainage systems | Broad array of habitats | Saline habitat- *Atriplex hymenotheca*  *Didymanthus roei*  *Gnephosis angianthoides*  *Stenopetalum salicola*  *Centrolepis humillima*  Saline influence *Lycium australe*  *Threlkeldia diffusa*  *Pogonolepis stricta*  *Rhagodia drummondii*  *Mesembryanthemum nodiflorum*  *Atriplex paludosa* | Dominated by annual herbs that have distributions centred within the Avon Wheatbelt and Mallee |
| 19 | 31% restricted to wetlands | 18 out of 63 species  28%  8 weeds | More restricted to primary salt lake habitats  Non wetland habitats of valley floors  Moderate to high ELCODE | Shrublands on elevated rises as well as mid slope chenopod dominated low shrublands on margins of salt lakes | *Gunniopsis quadrifida*  *Eremophila miniata*  *Maireana amoena*  *Maireana atkinsoniana* | Distribution of taxa northern Avon Wheatbelt  Geraldton sandplains  Yalgoo |
| 20 | 9% restricted to wetlands | 33 out of 76  43%  4 weeds | Within wetlands on elevated flats and dunes in primary salt lake systems  17 and 19 northern  Sandy lunettes and flats | Widespread annual herbs  Dunes Darwinia sp. Karonie  Leucopogon sp. Kau Rock | *Carpobrotus modestus*  *Melaleuca brophyi*  Restricted to wetlands-  *Eucalyptus sargentii*  *Eualyptus salicola*  *Bossiaea halophila*  *Lomandra micrantha* subsp. *teretifolia* | Central and southern wheatbelt  Avon wheatbelt  Mallee |
| 21 | None restricted to wetlands | 24 out of 34  70 %  7 weeds | Finer textured soils of valley floors and broad Aeolian plains associated with primary salt lake systems |  | Strongly associated with primarily saline wetlands –  *Acacia inceana*  *Millotia major*  *Eucalyptus kondininensis* | Southern Avon Wheatbelt  Mallee Coolgardie and northern Avon Wheatbelt |