**Appendix 9 Rare Flora Information - Sites with gypsum**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Taxon** | **ConservationClassification** | **Area sites recorded from** | **Soil Types** | **Sites and localities recorded** | **No Herb. Specimens** | **No Herb. Specimens with gypsum** | **Distribution**  | **Gypsophile or gypsum tolerant** |
| Adenanthos pungens subsp. pungens  | R | Chinocup | Dune sand / gypsum  | SHB20,22,24 | 14 | 2 | Chinocup, Nr Stirling Ranges | t |
| Angianthus halophilus  | P3 | Lake King | Sandy ridge/island in lake - gypsum  | SPS071A 95% gypsum | 7 | 1 | Lake King, Lake Grace, Lake Cairlocup | t |
| Angianthus sp. Altham (M.N. Lyons 2623)  | P1 | South Lake Altham | gypsiferous dune near GYP026 | GYP026 54% gypsum | 1 | 1 | Lake Altham | ?g only 1 collection |
| Astartea sp. Esperance (A. Fairall 2431)  | P1 | Quarry Lake | sand, clay, sandy gravel, gypsum  | SPS125C 14% | 5 | 0 |  | t |
| Austrostipa geoffreyi  | P1 | Lake Grace South | gypsum dune  | G227 100% gypsum | 5 | 3 | Lake Grace, Lake King | g |
| Lake King | Lake margins and dunes gypsum , sand  | SPS071A 95% gypsum |
| Blennospora phlegmatocarpa  | P2 | Emu Rock | gypsum | SPS021B 4% gypsum | 68 | 4 | most of project area | t |
| Kondinin Salt Marsh, Lake Kurrenkutten | gypsum dune, loam clay over clay,loam  | SPS016A 54% gypsum, SPS016B 76% gypsum, G433 100% gypsum, G434 90% gypsum, G435 10% gypsum, G404 10% gypsum |
| Cunderdin | salt flat | no gypsum |
| Kellerberrin, Hines Hill | low sandy rise, small dune, saline flat  | SPS208A no gypsum |
| Lake Wallambin | saline drainage line,  | G485 20% gypsum |
| Lake Gounter near Hyden | SPS020C | 1% gypsum |
| Conostephium pungens  | P2 | Chinocup | gypsum and sandy soils  | DU13 - no gypsum | 3 | 1 | Chinocup | t |
| Eucalyptus exigua  | P3 | Cowcowing area | Embankment lake edge clay, gypsum  | G467 20% | 29 | 1 | Lake King north to COO2 sub region NW to Cowcowing | t |
| Eucalyptus quaerenda  | P3 | Chinocup, Lake Altham, Pingrup | gypsum, sandy soils over clay and sandy soils |  | 43 | 3 | Lake Altham area to Lake King and upper Phillips River | t |
| Lake King area | near salt lake | no gypsum |
| Fitzwillia axilliflora  | P2 | Magenta | saline lake | no gypsum | 10 | 0 | Newdegate /Lake Bryde North to Morawa area | t |
| Newdegate (Lake Burkett) | edge salt lake | no gypsum |
| Cowcowing | saline basin | no gypsum |
| Coorow | gypsum | SPS172C 50% gypsum |
| N Lake Moore | gypsum | SPS211A 97% gypsum |
| Gunyiddi | gypsum | SPS157D 4% gypsum,158I 12% gypsum |
| Frankenia conferta  | R | Cowcowing | salt lake edge, sand over clay | no gypsum | 24 | 7 | Coorow, lake Moore, Lake Mollerin | t |
| Lake De Courcy | salt lake - clay and sand clay | no gypsum |
| Lake Goorly | Tecticornia  | WU08 no gypsum |
| Lake Harvey | Salt lake - sand clay  | SPS170B 96% gypsum |
| Damboring |  gypsum | SPS152B 32% gypsum |
| Lake Moore | gypsum | SPS148E 96% gypsum,148F 96% gypsum |
| Gunyiddi | gypsum | SPS157D 4% gypsum, |
| Coorow | gypsum | SPS171C 98% gypsum |
| Marchagee | gypsum | SPS201B 96% gypsum |
| Frankenia drummondii  | P3 | Chinocup, Lake Altham | lunette/low dune adjacent saline pan - sandy loam soils, loamy sand road verge | no gypsum | 28 | 3 | Kondinin to Salmon Gums | t |
| Kondinin | gypsum dune, sandy clay, low rise trace gypsum loamy sand, sand dune sand | gypsum |
| Lake King | sandy loam, loamy sand, 10m from salt pan | no gypsum |
| Lake Lockhart | sandy loam soils | no gypsum |
| Frankenia sp. southern gypsum (M.N. Lyons 2864)  | P1 | Lake King,  | Low rise gypsum  | SPS 071A 95% gypsum, 071B 97% gypsum, LK21 93% gypsum,  | 3 | 2 | S Pingaring, Quarry Lake area, Lake Magenta | g |
| Lake Varley | gypsum | HY02 62% gypsum |
| Lake Burkett | gypsum | GYP013 94% gypsum,014 97% gypsum |
| Lake Magenta/ Lake Cobham | gypsum | GYP002,004,007,008,009,010,015,016,017,018,020, G223, G224, G225, 3-100% gypsum |
| Lake Lockhart | gypsum | GYP022 90% gypsum,025 78% gypsum  |
| Quarry Lake | gypsum | GP05 79% gypsum |
| Fisher Lake | gypsum | SPS025D 26% gypsum |
| ?Bruce Rock area, Fisher Lake, Lake Ronnerup | no gypsum | SPS099A, SPM025B, SPS025C, SPS 084A |
| Goodenia integerrima  | R | Lake king | gypsum clay, clay sand, margin salt lake, islet in salt lake, sandy island in salt lake | gypsum | 14 | 2 | Lake King | g |
| Goodenia salina  | P2 | Lake Altham | gypsiferous dune on shore of saline pan | gypsum | 6 | 4 | Lake King, Lake Altham, Lake Cairlocup | g |
| Lake King | previous gypsum mine, islet in salt lake |  SPS071A 95% gypsum, |
| Lake Varley | gypsum | SPS019B 96% gypsum |
| UCL east Lake Magenta | gypsum | SPS080A 28% gypsum |
| Lake Cobham | Loamy sand | adjacent to gypsum |
| Gunniopsis rubra  | P3 | Lake Cowcowing | ?gypum | G?rubra G492 100% gypsum | 26 | 0 | mainly AW1. Wide range of habitats including banded ironstone | t |
| Wubin/Lake Hillman | loam over clay mid slope, hard pan  | WU11 no gypsum |
| Hines Hill | valley, loam,sand,saline | no gypsum |
| Campion | mid slope of valley, clay loam  | no gypsum |
| Haegiela tatei  | P4 | lake King | gypsum dune, sand dune, Greens mining lease  | G215 100% gypsum | 22 | 5 | Mainly MAL1 and MAL2. 2 sites in COO2 and 1 site east of Geraldton | t |
| UCL east Lake Magenta, Lake Magenta | gypsum | SPS080A 28% gypsum, Pl10 20% gypsum |
| Lake Lockhart | gypsum | G240 90% gypsum |
| Lake Varley | gypsum | SPS019B 96% gypsum |
| Emu Rock | gypsum | SPS021B 4% gypsum, 021C 31% gypsum |
| Hakea ?rigida | P2 | Lake Campion NR and surrounding area | gypsum dune, loamy sand, dand on rise sandy gravel | gypsum | 15 | 0 | Campion area east to Kalgoorlie | t |
| Hydrocotyle hexaptera ms  | P1 | Lake King | sandy island, sand fringing salt lake, low flat subject to inundation | SPS071A 95% gypsum, 071B 97% gypsum, ?G215 100% gypsum | 6 | 2 | Lake King, ?Gunyiddi) | g |
| Gunyiddi | low gypsum | SPS157D 4% gypsum |
| Hydrocotyle sp. Truslove (M.A. Burgman 4419)  | P1 | Truslove, Scadden | white sand over gypsum in flats, sand - loam, samphire flat gypsum, | gypsum | 6 | 2 | Scadden, Truslove | g |
| Hydrocotyle vigintimilia | P1 | Arrowsmith Lake  | low gypsum | SPS 179C 7% gypsum | 3 | 0 | Arrowsmith Lake and NW of Esperance | t |
| Microseris scapigera  | P3 | Lake Magenta | Kopi dune and PL10 | PL10 20% gypsum | 18 | 2 | Mainly MAL1 and MAL2. South Australia | t |
| Chinocup | Lunette adjacent to saline pan, sand  | SPS058B no gypsum |
| Emu Rock | low gypsum | SPS021B 4% gypsum |
| Millotia steetziana  | P2 | Chinocup | saline flat, sandy soils over clay, rise adjacent to salt lake - sand, ,  | SPS210A no gypsum ,210B no gypsum | 8 | 0 | Kondinin, Chinocup, Lake King | t |
| Lake King | sandy soil west shore | no gypsum |
| Kondinin | sand/loam rise in saline drainage line | no gypsum |
| Lake Magenta | gypsum | PL10 20% gypsum |
| Pimelea halophila  | P4 | Lake King |  sandy island, raised white island, islet in salt lake, clayey sand, sand over clay, adjacent to gypsum mine, edge of salt lake clay loam, sandy soil with gypsum | SPS071A 95% gypsum, G215 100% gypsum | 20 | 3 | Lake King to N and E of Esperance | t |
| Podotheca pritzelii | P3 | Kondinin | Gypsum | SPS016B 76% gypsum,016C 77% gypsum | 18 | 0 | Campion north to Geraldton area | t |
| Lake Goorly | low dune beside salt lake, sand  | SPS144A no gypsum |
| Campion | valley flat, sand over clay  | MN16 no gypsum |
| Ptilotus fasciculatus  | R | Cunderdin  | No gypsum | no gypsum | 18 | 0 | Kondinin area north to Geraldton area | t |
| Seagroat | Flat, clay | no gypsum |
| Kondinin |  sandy silt, saline flood plain | G437 50% gypsum |
| Roycea pycnophylloides  | R | Kondinin | samphire/gypsum dune edge of salt lake, low rise,loamy sand trace gypsum  | G437 50% gypsum, SPS017?- trace gypsum | 57 | 6 | Cunderdin to lake King | t |
| Cunderdin | sandy salt lands | no gypsum |
| Mortlock River east | very low sandy rise  | SPS207D no gypsum |
| Chinocup |  Clay pan, sand, clay, seasonally inundated flat adjacent to salt lake  | SPS 210C no gypsum |
| Lake Altham area | salt clay pan, clay, | no gypsum |
| Lake King area | Lake, sand | no gypsum |
| Sarcocornia globosa  | P3 | Chinocup | Saline flat adjacent to salt lake, sand  | SPS210C no gypsum | 20 | 3 | Chinocup and Lake Fox to East Geraldton | t |
| Kondinin | sandy clay, gypsum  | G436 50% gypsum |
| Lake Fox | Southern shore | no gypsum |
| Tecticornia annelida | P1 | Lake Moore | gypsum | SPS148E 96% gypsum | 11 | 0 | AW1 Gunyiddi to E Geraldton | t |
| Gunyiddi | gypsum | SPS158I 12% gypsum |
| Tecticornia fimbriata  | P3 | Gunyiddi | gypsum | SPS157D 4% gypsum | 23 | 4 | northern section AW1 | t |

**Table Rare and Priority Flora recorded for salt lakes but not on gypsiferous soils.**

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| --- | --- | --- | --- | --- | --- | --- | --- |
| **Taxon** | **Classification** | **Areas sites recorded at**  | **Soil types** | **Sites** | **No Herb. Specimens**  | **Geographical Distribution** | **Comments** |
| Angianthus micropodioides  | P3 | Mortlock River, Cunderdin | Saline drainage line, dune, sand  | SPS207D,128A no gypsum | 21 | Cunderdin area north to Lake Harvey | Likely sites. Associated with salt lakes, Dunes including E side of lake |
| Cowcowing | Low rise adjacent to saline wetland, sand  | SPS156D no gypsum |
| Lake Harvey | Sandy flat adjacent to salt lake | no gypsum |
| Drosera salina  | P2 | Chinocup | Drainage line sand, adjacent salt lake sandy soils over clay | no gypsum | 11 | MAL1, MAL2  | Associated with salt lake margins |
| Lake King | Sand over clay silt | no gypsum |
| Eremophila serpens | P4 | Hyden, Newdegate, Esperance | sandy soils, sandy loam, dunes, margin of salt lakes | no gypsum | 33 | Hyden, Newdegate, esperance | Associated with salt lakes |
| Eremophila subteretifolia | R | Lake King area, NW Ravensthorpe | sand or sandy loam, margin of salt lakes | no gypsum | 15 | Lake king area and NW Ravensthorpe | Associated with salt lakes |
| Eucalyptus spathulata subsp. salina | P3 | kondinin/seagroat | edge salt lake, slight rise, flat sand-clay duplex clay loam flat | no gypsum | 14 | Quairading, Narambeen, Brookton, Kondinin | Edge of salt lakes including dunes |
| Frankenia bracteata | P1 | Cunderdin |  | no gypsum | 12 | Cunderdin area north to Mullewa area  | salt lakes |
| Frankenia glomerata | P3 | Cowcowing/cunderdin |  | no gypsum | 28 | Most AW1 and 2 locations N of Wiluna | Salt lakes, beach and dune E and S of lake |
| Frankenia parvula | R | Mortlock/Cunderdin | TEC | no gypsum | 10 | Cunderdin area to COO2 | sandy soils, salt lakes |
| Hydrocotyle muriculata  | P1 | Lake Burkett | raised margin of salt lake, clay loam | no gypsum | 14 | MAL2 | SE edge of salt lake, gypsum tolerant species associated |
| Hypoxis salina | P1 | Chinocup | saline drainage line, sandy soils over clay | no gypsum | 4 | r (Chinocup) | Associated with salt lake margins and gypsum tolerant species associated |
| Lepidium genistoides  | P2 | cowcowing area | sandy silt | no gypsum | 21 | r (Koorda area to Souther Cross area) | Salt lakes some associated species gypsum tolerant |
| Hines Hill | Low dune between salt lakes | no gypsum |
| Lepidobolus spiralis  | P2 | Lake King - Norseman Rd | sand fringing salt lake | no gypsum | 3 | r (Lake King, Frank Hann NP) | edge of salt lakes  |
| Scaevola tortuosa | P1 | Cunderdin/kellerberrin | salt lake fringe | no gypsum | 9 | North of Esperance to Cunderdin | Edge of salt lakes |
| Stylidium pulviniforme  | P3 | Lake king | G221, small dune west shore, sand | no gypsum | 20 | Lake Cobham to Salmon Gums and into COO2 | Salt lakes, saline sand |
| UCL South lake Cobham | clay | no gypsum |
| Tribonanthes minor | P3 | Chinocup | sand within saline drainage line, slight rise above salt lake SPS210 | no gypsum | 5 | Lake king, Chinocup | Salt Lake edge |
| Lake King | shallow sand at lake edge, sand over clay, flat terrain | no gypsum |