



**A COMPARISON
OF THE EFFECTS OF
GRAZING AND MINING
ON VEGETATION OF SELECTED PARTS
OF NORTHERN SOUTH AUSTRALIA**

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APPENDIX A LIST OF ALL PLANTS MENTIONED IN THE THESIS

* indicates introduced taxa

Species	Family
<i>Abutilon otocarpum</i> F.Muell.	Malvaceae
<i>Acacia aneura</i> F.Muell. ex Benth.	Leguminosae
<i>Acacia burkittii</i> F.Muell. ex Benth.	Leguminosae
<i>Acacia ligulata</i> Cunn. ex Benth.	Leguminosae
<i>Acacia papyrocarpa</i> Benth.	Leguminosae
<i>Acacia ramulosa</i> W.Fitz.	Leguminosae
<i>Acacia tetragonophylla</i> F.Muell.	Leguminosae
<i>Acacia victoriae</i> Benth.	Leguminosae
<i>Alectryon oleifolius</i> (Desf.)S.Reyn ssp. <i>canescens</i> S.Reyn	Sapindaceae
<i>Amaranthus grandiflorus</i> (J.Black)J.Black	Amaranthaceae
<i>Amaranthus mitchellii</i> Benth.	Amaranthaceae
<i>Amyema maidenii</i> (Blakely)Danser	Loranthaceae
<i>Amyema preissii</i> (Miq.)Tieghem	Loranthaceae
<i>Anemocarpa podolepidium</i> (F.Muell.)Paul G.Wilson	Compositae
<i>Angianthus brachypappus</i> F.Muell.	Compositae
<i>Arabidella eremigena</i> (F.Muell.)E.Shaw	Cruciferae
<i>Arabidella trisecta</i> (F.Muell.)O.Schulz	Cruciferae
<i>Aristida anthoxanthoides</i> (Domin)Henrard	Gramineae
<i>Aristida contorta</i> F.Muell	Gramineae
<i>Aristida holathera</i> Domin	Gramineae
<i>Astrebla lappacea</i> (Lindley)Domin	Gramineae
<i>Astrebla pectinata</i> (Lindley)F.Muell.	Gramineae
<i>Atriplex angulata</i> Benth.	Chenopodiaceae
<i>Atriplex fissivalvis</i> F.Muell.	Chenopodiaceae
<i>Atriplex holocarpa</i> F.Muell.	Chenopodiaceae
<i>Atriplex limbata</i> Benth.	Chenopodiaceae
<i>Atriplex lindleyi</i> Moq.	Chenopodiaceae
<i>Atriplex spongiosa</i> F.Muell.	Chenopodiaceae
<i>Atriplex stipitata</i> Benth.	Chenopodiaceae
<i>Atriplex velutinella</i> F.Muell.	Chenopodiaceae
<i>Atriplex vesicaria</i> Heward ex Benth.	Chenopodiaceae
<i>Blennodia canescens</i> R.Br.	Cruciferae
<i>Blennodia pterosperma</i> (J.Black)J.Black	Cruciferae
<i>Boerhavia coccinea</i> Miller	Nyctaginaceae
<i>Boerhavia diffusa</i> L.	Nyctaginaceae
<i>Boerhavia dominii</i> Meikle & Hewson	Nyctaginaceae
<i>Boerhavia schomburgkiana</i> Oliver	Nyctaginaceae
<i>Brachyscome ciliaris</i> (Labill.)Less.	Compositae
<i>Brachyscome lineariloba</i> (DC)Druce	Compositae
* <i>Brassica tournefortii</i> Gouan	Cruciferae
<i>Bulbine alata</i> Baijnath	Liliaceae
<i>Calandrinia disperma</i> J.Black	Portulacaceae
<i>Calandrinia eremaea</i> Ewart	Portulacaceae
<i>Calandrinia remota</i> J.Black	Portulacaceae
<i>Callitris glaucophylla</i> J.Thompson & L.Johnson	Cupressaceae
<i>Calocephalus platycephalus</i> (F.Muell.)Benth.	Compositae
<i>Calotis cymbacantha</i> F.Muell.	Compositae
<i>Calotis hispidula</i> (F.Muell.)F.Muell.	Compositae
<i>Calotis plumulifera</i> F.Muell.	Compositae
* <i>Carrichtera annua</i> (L.)DC	Cruciferae
<i>Casuarina pauper</i> F.Muell. ex L.Johnson	Casuarinaceae

* <i>Centaurium spicatum</i> (L.)Fritsch	Gentianaceae
<i>Centipeda thespidioides</i> F.Muell.	Compositae
<i>Chenopodium auricomum</i> Lindley	Chenopodiaceae
<i>Chenopodium desertorum</i> (J.Black)J.Black	Chenopodiaceae
<i>Chenopodium pumilio</i> R.Br.	Chenopodiaceae
* <i>Chloris virgata</i> Sw.	Gramineae
<i>Chrysocephalum apiculatum</i> (Labill.)Steetz	Compositae
<i>Chthonocephalus pseudevax</i> Steetz	Compositae
* <i>Citrullus colocynthis</i> (L.)Schrader	Cucurbitaceae
* <i>Citrullus lanatus</i> (Thunb.)Mansf. & Nakai	Cucurbitaceae
<i>Convolvulus erubescens</i> Sims	Convolvulaceae
<i>Convolvulus remotus</i> R.Br.	Convolvulaceae
<i>Crassula colorata</i> (Nees)Ostenf.	Crassulaceae
<i>Crotalaria eremaea</i> F.Muell.	Leguminosae
<i>Cucumis myriocarpus</i> Naudin	Cucurbitaceae
<i>Cullen australasicum</i> (Schldl.)J.W.Grimes	Leguminosae
<i>Cullen cinereum</i> (Lindley)J.W.Grimes	Leguminosae
<i>Cullen pallidum</i> (N.T.Burb.)J.W.Grimes	Leguminosae
<i>Cullen patens</i> (Lindley)J.W.Grimes	Leguminosae
<i>Cuscuta victoriana</i> Yuncker	Convolvulaceae
<i>Cyperus bulbosus</i> Vahl	Cyperaceae
<i>Cyperus laevigatus</i> L.	Cyperaceae
<i>Cyperus squarrosus</i> L.	Cyperaceae
<i>Dactyloctenium radulans</i> (R.Br.)P.Beauv.	Gramineae
<i>Daucus glochidiatus</i> (Labill.)Fischer et al.	Umbelliferae
<i>Dichanthium sericeum</i> ssp. <i>affine</i>	Gramineae
<i>Dichanthium sericeum</i> ssp. <i>humilius</i>	Gramineae
<i>Dichromochlamys dentatifolius</i> (F.Muell.)Dunlop	Compositae
<i>Digitaria coenicola</i> (F.Muell.)Hughes	Gramineae
<i>Dimorphocoma minutula</i> F.Muell. & Tate	Compositae
<i>Dissocarpus biflorus</i> F.Muell.	Chenopodiaceae
<i>Dissocarpus paradoxus</i> (R.Br.)F.Muell. ex Ulbr.	Chenopodiaceae
<i>Dodonaea viscosa</i> Jacq. ssp. <i>angustissima</i>	Sapindaceae
<i>Einadia nutans</i> (R.Br.)A.J.Scott	Chenopodiaceae
<i>Enchylaena tomentosa</i> R.Br.	Chenopodiaceae
<i>Enneapogon avenaceus</i> C.Hubb.	Gramineae
<i>Enneapogon cylindricus</i> N.Burb.	Gramineae
<i>Enneapogon polyphyllus</i> (Domin)N.Burb.	Gramineae
<i>Eragrostis basedowii</i> Jedwabn.	Gramineae
<i>Eragrostis dielsii</i> Pilger	Gramineae
<i>Eragrostis eriopoda</i> Benth.	Gramineae
<i>Eragrostis falcata</i> (Gaudich.)Benth.	Gramineae
<i>Eragrostis laniflora</i> Benth.	Gramineae
<i>Eragrostis leptocarpa</i> Benth.	Gramineae
<i>Eragrostis setifolia</i> Nees	Gramineae
<i>Eragrostis xerophila</i> Domin	Gramineae
<i>Eremophila longifolia</i> (R.Br.)F.Muell.	Myoporaceae
<i>Eremophila scoparia</i> (R.Br.)F.Muell.	Myoporaceae
<i>Eremophila sturtii</i> R.Br.	Myoporaceae
<i>Eriachne helmsii</i> (Domin)Hartley	Gramineae
<i>Eriocaulon carsonii</i> F.Muell.	Eriocaulaceae
<i>Eriochiton sclerolaenoides</i> (F.Muell.)F.Muell. ex A.J.Scott	Chenopodiaceae
<i>Eriochloa australiensis</i> Stapf ex Thell.	Gramineae
<i>Erodium angustilobum</i> Carolin	Geraniaceae
* <i>Erodium aureum</i> Carolin	Geraniaceae

* <i>Erodium cicutarium</i> (L.)L'Her.	Geraniaceae
<i>Erodium crinitum</i> Carolin	Geraniaceae
<i>Erodium cygnorum</i> Nees	Geraniaceae
<i>Eucalyptus coolabah</i> Blakely & Jacobs var. <i>arida</i> (Blakely)L.Johnson & K.Hill	Myrtaceae
<i>Euphorbia australis</i> Boiss.	Euphorbiaceae
<i>Euphorbia drummondii</i> Boiss	Euphorbiaceae
<i>Euphorbia tannensis</i> Sprengel ssp. <i>eremophila</i> (Cunn. ex Hook.)Hassall	Euphorbiaceae
<i>Euphorbia wheeleri</i> Baillon	Euphorbiaceae
<i>Fimbristylis dichotoma</i> (L.)Vahl	Cyperaceae
<i>Frankenia serpyllifolia</i> Lindley	Frankeniaceae
<i>Gilesia biniflora</i> F.Muell.	Sterculiaceae
<i>Gnephosis arachnoidea</i> Turz.	Compositae
<i>Gnephosis eriocarpa</i> (F.Muell.)Benth.	Compositae
<i>Gnephosis tenuissima</i> Cass.	Compositae
<i>Goodenia berardiana</i> (Gaudich.)Carolin	Goodeniaceae
<i>Goodenia cycloptera</i> R.Br.	Goodeniaceae
<i>Goodenia fascicularis</i> F.Muell. & Tate	Goodeniaceae
<i>Goodenia lunata</i> J.Black	Goodeniaceae
<i>Goodenia pinnatifida</i> Schldl.	Goodeniaceae
<i>Goodenia pusilliflora</i> F.Muell.	Goodeniaceae
<i>Gunniopsis quadrifida</i> (F.Muell.)Pax	Aizoaceae
<i>Gunniopsis septifraga</i> (F.Muell.)Chinn.	Aizoaceae
<i>Halosarcia halocnemoides</i> (Nees)Paul G.Wilson	Chenopodiaceae
<i>Halosarcia indica</i> (Willd.) Paul G.Wilson ssp. <i>leiostachya</i> (Benth.) Paul G.Wilson	Chenopodiaceae
<i>Halosarcia pergranulata</i> (J.Black)Paul G.Wilson	Chenopodiaceae
<i>Harmsiodoxa blennodioides</i> (F.Muell.)O.Schulz	Cruciferae
<i>Harmsiodoxa brevipes</i> (F.Muell.)O.Schulz	Cruciferae
<i>Heliotropium tenuifolium</i> R.Br.	Boraginaceae
<i>Hibiscus krichauffianus</i> F.Muell.	Malvaceae
<i>Hyalosperma semisterile</i> (F.Muell.)Paul G.Wilson	Compositae
<i>Iseilema membranaceum</i> (Lindley)Domin	Gramineae
<i>Isoetopsis graminifolia</i> Turcz.	Compositae
<i>Ixiochlamys nana</i> (Ewart & Jean White)Grau	Compositae
<i>Ixiolaena leptolepis</i> (DC)Benth.	Compositae
<i>Juncus bufonius</i> L.	Juncaceae
<i>Lepidium oxytrichum</i> Sprague	Cruciferae
<i>Lepidium phlebopetalum</i> (F.Muell.)F.Muell.	Cruciferae
<i>Leucochrysum molle</i> (Cunn. ex DC)Paul G.Wilson	Compositae
<i>Leucochrysum stipitatum</i> (F.Muell.)Paul G.Wilson	Compositae
<i>Lotus cruentus</i> Court	Leguminosae
<i>Lycium australe</i> F.Muell.	Solanaceae
<i>Maireana aphylla</i> (R.Br.)Paul G.Wilson	Chenopodiaceae
<i>Maireana appressa</i> Paul G.Wilson	Chenopodiaceae
<i>Maireana astrotricha</i> (L.Johnson)Paul G.Wilson	Chenopodiaceae
<i>Maireana ciliata</i> (F.Muell.)Paul G.Wilson	Chenopodiaceae
<i>Maireana coronata</i> (J.Black)Paul G.Wilson	Chenopodiaceae
<i>Maireana erioclada</i> (Benth.)Paul G.Wilson	Chenopodiaceae
<i>Maireana georgei</i> (Diels)Paul G.Wilson	Chenopodiaceae
<i>Maireana integra</i> (Paul G.Wilson)Paul G.Wilson	Chenopodiaceae
<i>Maireana lobiflora</i> (Benth.)Paul G.Wilson	Chenopodiaceae
<i>Maireana pyramidata</i> (Benth.)Paul G.Wilson	Chenopodiaceae
<i>Maireana sedifolia</i> (F.Muell.)Paul G.Wilson	Chenopodiaceae
* <i>Malvastrum americanum</i> (L.)Torrey	Malvaceae
<i>Marsilea drummondii</i> A.Braun	Marsileaceae

<i>Menkea crassa</i> E.Shaw	Cruciferae
<i>Millotia greevesii</i> F.Muell.	Compositae
<i>Minuria cunninghamii</i> (DC)Benth.	Compositae
<i>Minuria denticulata</i> (DC)Benth.	Compositae
<i>Minuria integerrima</i> (DC)Benth.	Compositae
<i>Minuria leptophylla</i> DC	Compositae
<i>Minuria rigida</i> J.Black	Compositae
<i>Mollugo cerviana</i> (L.)Ser.	Aizoaceae
<i>Muehlenbeckia florulenta</i> Meissner	Polygonaceae
<i>Murchisonia volubilis</i> Brittan	Liliaceae
<i>Myoporum platycarpum</i> R.Br.	Myoporaceae
<i>Neptunia dimorphantha</i> Domin	Leguminosae
* <i>Nicotiana glauca</i> Graham	Solanaceae
<i>Nicotiana velutina</i> H.Wheeler	Solanaceae
<i>Omphalolappula concava</i> (F.Muell.)Brand	Boraginaceae
<i>Ophioglossum polyphyllum</i> A.Braun	Ophioglossaceae
<i>Osteocarpum acropterum</i> (F.Muell. & Tate)Volkens var. <i>acropterum</i>	Chenopodiaceae
<i>Osteocarpum dipterocarpum</i> (F.Muell.)Volkens	Chenopodiaceae
<i>Othonna gregorii</i> (F.Muell.)C.Jeffrey	Compositae
<i>Panicum decompositum</i> R.Br.	Gramineae
<i>Paractaenum novae-hollandiae</i> P.Beauv.	Gramineae
<i>Paractaenum refractum</i> (F.Muell.)R.Webster	Gramineae
<i>Paspalidium basicladum</i> Hughes	Gramineae
<i>Paspalidium constrictum</i> (Domin)C.E.Hubb.	Gramineae
<i>Peplidium foecundum</i> W.R.Barker	Scrophulariaceae
<i>Phlegmatospermum cochlearinum</i> (F.Muell.)O.Schulz	Cruciferae
<i>Phragmites australis</i> (Cav.)Trin. ex Steudel	Gramineae
<i>Phragmites karka</i> (Retz.)Tin. ex Steudel	Gramineae
<i>Phyllanthus fuernrohrii</i> F.Muell.	Euphorbiaceae
<i>Phyllanthus lacunarius</i> F.Muell.	Euphorbiaceae
<i>Pimelea simplex</i> F.Muell.	Thymelaeaceae
<i>Pittosporum phylliraeoides</i> DC var. <i>microcarpa</i> S.Moore	Pittosporaceae
<i>Plantago drummondii</i> Decne.	Plantaginaceae
<i>Podolepis capillaris</i> (Steetz)Diels	Compositae
<i>Polycalymma stuartii</i> F.Muell. & Sonder ex Sonder	Compositae
<i>Portulaca intraterranea</i> J.Black	Portulacaceae
<i>Portulaca oleracea</i> L.	Portulacaceae
<i>Pseudognaphalium luteoalbum</i> (L.)Hilliard & B.L.Burt	Compositae
<i>Ptilotus obovatus</i> (Gaudich.)F.Muell.	Amaranthaceae
<i>Ptilotus polystachyus</i> (Gaudich.)F.Muell.	Amaranthaceae
<i>Ptilotus sessilifolius</i> (Lindley) Benl	Amaranthaceae
<i>Pycnosorus pleiocephalus</i> (F.Muell.)Everett & Doust	Compositae
<i>Rhagodia spinescens</i> R.Br.	Chenopodiaceae
<i>Rhodanthe floribunda</i> (DC)Paul G.Wilson	Compositae
<i>Rhodanthe microglossa</i> (Maiden & E.Betche)Paul G.Wilson	Compositae
<i>Rhodanthe moschata</i> (Cunn. ex DC)Benth.	Compositae
<i>Rhodanthe pygmaea</i> (DC)Paul G.Wilson	Compositae
<i>Rhodanthe stricta</i> (Lindley)Paul G.Wilson	Compositae
<i>Rhodanthe stuartiana</i> (Sonder & F.Muell. ex Sonder)Paul G.Wilson	Compositae
<i>Rhodanthe uniflora</i> (J.Black)Paul G.Wilson	Compositae
* <i>Rostraria pumila</i> (Desf.)Tzvelev	Gramineae
<i>Salsola kali</i> L.	Chenopodiaceae
<i>Santalum acuminatum</i> (R.Br.)A.DC.	Santalaceae
<i>Santalum lanceolatum</i> R.Br.	Santalaceae
* <i>Schismus barbatus</i> (L.)Thell.	Gramineae

<i>Sclerolaena bicornis</i> Lindley	Chenopodiaceae
<i>Sclerolaena brachyptera</i> (F.Muell.)S.W.L.Jacobs	Chenopodiaceae
<i>Sclerolaena constricta</i> (Ising)A.J.Scott	Chenopodiaceae
<i>Sclerolaena cuneata</i> Paul G.Wilson	Chenopodiaceae
<i>Sclerolaena decurrens</i> (J.Black)A.J.Scott	Chenopodiaceae
<i>Sclerolaena diacantha</i> (Nees)Benth.	Chenopodiaceae
<i>Sclerolaena divaricata</i> (R.Br.)Smith	Chenopodiaceae
<i>Sclerolaena intricata</i> (R.Anderson)A.J.Scott	Chenopodiaceae
<i>Sclerolaena lanicuspis</i> (F.Muell.)Benth.	Chenopodiaceae
<i>Sclerolaena obliquicuspis</i> (R.Anderson)Ulbr.	Chenopodiaceae
<i>Sclerolaena parallelispis</i> (R.Anderson)A.J.Scott	Chenopodiaceae
<i>Sclerolaena tatei</i> (F.Muell.)A.J.Scott	Chenopodiaceae
<i>Sclerolaena uniflora</i> R.Br.	Chenopodiaceae
<i>Sclerolaena ventricosa</i> (J.Black)A.J.Scott	Chenopodiaceae
<i>Sclerostegia medullosa</i> Paul G.Wilson	Chenopodiaceae
<i>Sclerostegia tenuis</i> (Benth.)Paul G.Wilson	Chenopodiaceae
<i>Senecio glossanthus</i> (Sonder)Belcher	Compositae
<i>Senecio lautus</i> Forster f. ex Willd.	Compositae
<i>Senna artemisioides</i> (DC)Randell ssp <i>petiolaris</i> Randell	Leguminosae
<i>Senna artemisioides</i> (DC)Randell ssp <i>quadrifolia</i> Randell	Leguminosae
<i>Senna artemisioides</i> (DC)Randell ssp. <i>oligophylla</i> (F.Muell.)Randell	Leguminosae
<i>Sida ammophila</i> F.Muell. ex J.H.Willis	Malvaceae
<i>Sida fibulifera</i> Lindley	Malvaceae
<i>Sida intricata</i> F.Muell.	Malvaceae
<i>Solanum ellipticum</i> R.Br.	Solanaceae
* <i>Sonchus oleraceus</i> L.	Compositae
<i>Sporobolus actinocladus</i> (F.Muell.)F.Muell.	Gramineae
<i>Stemodia florulenta</i> W.R.Barker	Scrophulariaceae
<i>Stenopetalum lineare</i> R.Br. ex DC	Cruciferae
<i>Stipa nitida</i> Summerh. & C.E.Hubb.	Gramineae
<i>Swainsona adenophylla</i> J.Black	Leguminosae
<i>Swainsona formosa</i> (Don)J.Thompson	Leguminosae
<i>Swainsona oliveri</i> F.Muell.	Leguminosae
<i>Swainsona oroboides</i> F.Muell. ex Benth.	Leguminosae
<i>Swainsona phacoides</i> Benth.	Leguminosae
<i>Swainsona stipularis</i> F.Muell.	Leguminosae
<i>Synaptantha tillaeacea</i> (F.Muell.)Hook.f.	Rubiaceae
<i>Tephrosia sphaerospora</i> F.Muell.	Leguminosae
<i>Tetragonia eremaea</i> Ostenf.	Aizoaceae
<i>Tetragonia tetragonioides</i> (Pallas)Kuntze	Aizoaceae
<i>Thysanotus exiliflorus</i> F.Muell.	Liliaceae
<i>Trachymene glaucifolia</i> (F.Muell.)Benth.	Umbelliferae
<i>Tragus australianus</i> S.T.Blake	Gramineae
<i>Trianthema triquetra</i> Willd.	Aizoaceae
<i>Tribulus eichlerianus</i> K.L.Wilson	Zygophyllaceae
* <i>Tribulus terrestris</i> L.	Zygophyllaceae
<i>Trichanthodium skirrophorum</i> Sonder & F.Muell. ex Sonder	Compositae
<i>Trichodesma zeylanicum</i> (Burman f.)R.Br.	Boraginaceae
<i>Triglochin calcitrapum</i> Hook.	Juncaginaceae
<i>Trigonella suavissima</i> Lindley	Leguminosae
<i>Tripogon loliformis</i> (F.Muell.)C.E.Hubb.	Gramineae
<i>Triraphis mollis</i> R.Br.	Gramineae
<i>Urochloa praetervisiva</i> (Domin)Hughes	Gramineae
<i>Vittadinia eremaea</i> N.Burb.	Compositae
<i>Wahlenbergia tumidifruca</i> P.J.Smith	Caryophyllaceae

<i>Wurmbea dioica</i> (R.Br.)F.Muell. ssp. <i>citrina</i> R.Bates	Liliaceae
* <i>Xanthium spinosum</i> L.	Compositae
<i>Zygochloa paradoxa</i> (R.Br.)S.T.Blake	Gramineae
<i>Zygophyllum ammophilum</i> F.Muell.	Zygophyllaceae
<i>Zygophyllum emarginatum</i> H.Eichler	Zygophyllaceae
<i>Zygophyllum eremaeum</i> (Diels)Ostenf.	Zygophyllaceae
<i>Zygophyllum howittii</i> F.Muell.	Zygophyllaceae
<i>Zygophyllum prismatothecum</i> F.Muell.	Zygophyllaceae
<i>Zygophyllum simile</i> H.Eichler	Zygophyllaceae

APPENDIX B COORDINATES OF MONITORING SITES

Site	Olympic Dam Site Number	Latitude	Longitude
Billa Kalina			
Site 1		29° 58.30' S	136° 16.75' E
Site 2		29° 58.30' S	136° 18.00' E
Site 3		29° 59.26' S	136° 17.81' E
Site 4		29° 59.21' S	136° 18.21' E
Site 1 Second Control Site		29° 58.55' S	136° 16.70' E
Site 2 Second Control Site		29° 58.31' S	136° 19.16' E
Wilpoorinna		29° 56.70' S	138° 18.24' E
Dulkaninna		29° 04.49' S	138° 26.21' E
Cowarie		27° 03.85' S	138° 31.93' E
OD01	EV001	30° 29.08' S	136° 52.90' E
OD02	EV002	30° 29.12' S	136° 52.73' E
OD03	EV003	30° 28.68' S	136° 52.99' E
OD04	EV005	30° 26.57' S	136° 54.09' E
OD05	EV007	30° 28.30' S	136° 46.31' E
OD06	EV008	30° 27.83' S	136° 49.41' E
OD07	EV009	30° 32.84' S	136° 48.72' E
OD08	EV010	30° 30.85' S	136° 45.96' E
OD09	EV011	30° 33.60' S	136° 52.85' E
OD10	EV012	30° 32.87' S	136° 56.64' E
OD11	EV013	30° 30.68' S	136° 59.97' E
OD12	EV014	30° 29.04' S	136° 01.11' E
OD13	EV015	30° 25.96' S	136° 54.28' E
OD14	EV016	30° 22.74' S	136° 47.16' E
OD15	EV017	30° 26.99' S	136° 55.28' E
OD16	EV018	30° 27.82' S	136° 58.20' E
OD17	EV020	30° 27.79' S	136° 54.14' E
OD18	EV021	30° 36.97' S	136° 54.81' E
OD19	EV022	30° 27.57' S	136° 51.92' E
OD20	EV023	30° 27.63' S	136° 51.93' E
OD21	EV024	30° 27.61' S	136° 51.82' E
OD22	EV025	30° 27.66' S	136° 50.54' E
OD23	EV028	30° 28.17' S	136° 47.95' E
OD24	EV031	30° 30.78' S	136° 45.50' E
OD25	EV032	30° 31.07' S	136° 47.40' E
OD26	EV034	30° 32.73' S	136° 49.14' E
OD27	EV035	30° 25.47' S	136° 52.16' E
OD28	EV036	30° 27.92' S	136° 53.62' E
OD29	EV037	30° 27.98' S	136° 53.70' E
OD30	EV038	30° 27.64' S	136° 54.78' E
OD31	EV039	30° 27.72' S	136° 54.79' E
OD32	EV040	30° 39.14' S	136° 54.67' E
OD33	EV041	30° 29.98' S	136° 01.17' E
OD34	EV043	30° 33.42' S	136° 53.56' E
OD35	EV044	30° 33.42' S	136° 53.56' E
OD36	EV046	30° 34.11' S	136° 51.98' E
OD37	EV047	30° 34.11' S	136° 51.98' E
OD38	EV048	30° 34.96' S	136° 50.91' E
OD39	EV049	30° 34.96' S	136° 50.91' E
OD40	EV050	30° 26.24' S	136° 53.08' E
OD41	EV051	30° 26.24' S	136° 53.08' E
OD42	EV054	30° 28.41' S	136° 51.85' E
OD43	EV055	30° 28.41' S	136° 51.85' E
OD44	EV056	30° 28.42' S	136° 51.19' E
OD45	EV057	30° 28.42' S	136° 51.19' E
OD46	EV058	30° 23.11' S	136° 52.04' E

Site	Olympic Dam Site Number	Latitude	Longitude
OD47	EV059	30 ⁰ 23.11' S	136 ⁰ 52.04' E
OD48	EV060	30 ⁰ 27.07' S	136 ⁰ 51.18' E
OD49	EV061	30 ⁰ 27.07' S	136 ⁰ 51.18' E
OD50	EV062	30 ⁰ 34.77' S	136 ⁰ 52.86' E
OD51	EV063	30 ⁰ 34.77' S	136 ⁰ 52.86' E
OD52	EV081	30 ⁰ 26.68' S	136 ⁰ 50.90' E
OD53	EV082	30 ⁰ 26.73' S	136 ⁰ 50.77' E
OD54	EV083	30 ⁰ 26.97' S	136 ⁰ 50.09' E
OD55	EV084	30 ⁰ 26.88' S	136 ⁰ 50.08' E
OD56	EV085	30 ⁰ 26.55' S	136 ⁰ 50.03' E
OD57	EV086	30 ⁰ 26.49' S	136 ⁰ 50.09' E
OD58	EV087	30 ⁰ 26.49' S	136 ⁰ 50.64' E
OD59	EV088	30 ⁰ 26.47' S	136 ⁰ 50.63' E
OD60	EV095	30 ⁰ 25.89' S	136 ⁰ 50.69' E
OD61	EV096	30 ⁰ 25.87' S	136 ⁰ 50.48' E
OD62	EV097	30 ⁰ 26.00' S	136 ⁰ 49.88' E
OD63	EV099	30 ⁰ 26.09' S	136 ⁰ 51.49' E
OD64	EV183	30 ⁰ 27.30' S	136 ⁰ 51.97' E
OD65	EV184	30 ⁰ 27.14' S	136 ⁰ 52.63' E
OD66	EV185N	30 ⁰ 27.56' S	136 ⁰ 52.79' E
OD67	EV185S	30 ⁰ 27.62' S	136 ⁰ 52.77' E
OD68	EV186N	30 ⁰ 27.71' S	136 ⁰ 52.08' E
OD69	EV186S	30 ⁰ 27.73' S	136 ⁰ 52.06' E
OD70	EV187	30 ⁰ 27.36' S	136 ⁰ 52.19' E
OD71	EV197	30 ⁰ 26.51' S	136 ⁰ 47.95' E
OD72	EV198	30 ⁰ 26.50' S	136 ⁰ 47.83' E
OD73	EV191N	30 ⁰ 34.04' S	136 ⁰ 55.01' E
OD74	EV191W	30 ⁰ 34.04' S	136 ⁰ 55.01' E
OD75	EV192N	30 ⁰ 34.33' S	136 ⁰ 54.75' E
OD76	EV192S	30 ⁰ 34.33' S	136 ⁰ 54.75' E
OD77	EV193	30 ⁰ 34.34' S	136 ⁰ 54.73' E
OD78	EV194	30 ⁰ 34.47' S	136 ⁰ 54.67' E
OD79	EV195	30 ⁰ 34.05' S	136 ⁰ 54.63' E
OD80	EV196	30 ⁰ 34.14' S	136 ⁰ 54.57' E
OD81	EV075	30 ⁰ 26.20' S	136 ⁰ 52.50' E
OD82	EV076	30 ⁰ 26.20' S	136 ⁰ 52.50' E
OD83	EV102A	30 ⁰ 27.69' S	136 ⁰ 50.70' E
OD84	EV112	30 ⁰ 23.75' S	136 ⁰ 45.34' E
OD85	EV113	30 ⁰ 23.07' S	136 ⁰ 46.41' E
OD86	EV177	30 ⁰ 24.90' S	136 ⁰ 52.11' E

APPENDIX C OLYMPIC DAM SITE NUMBERS AND CODES USED IN DATA ANALYSIS.

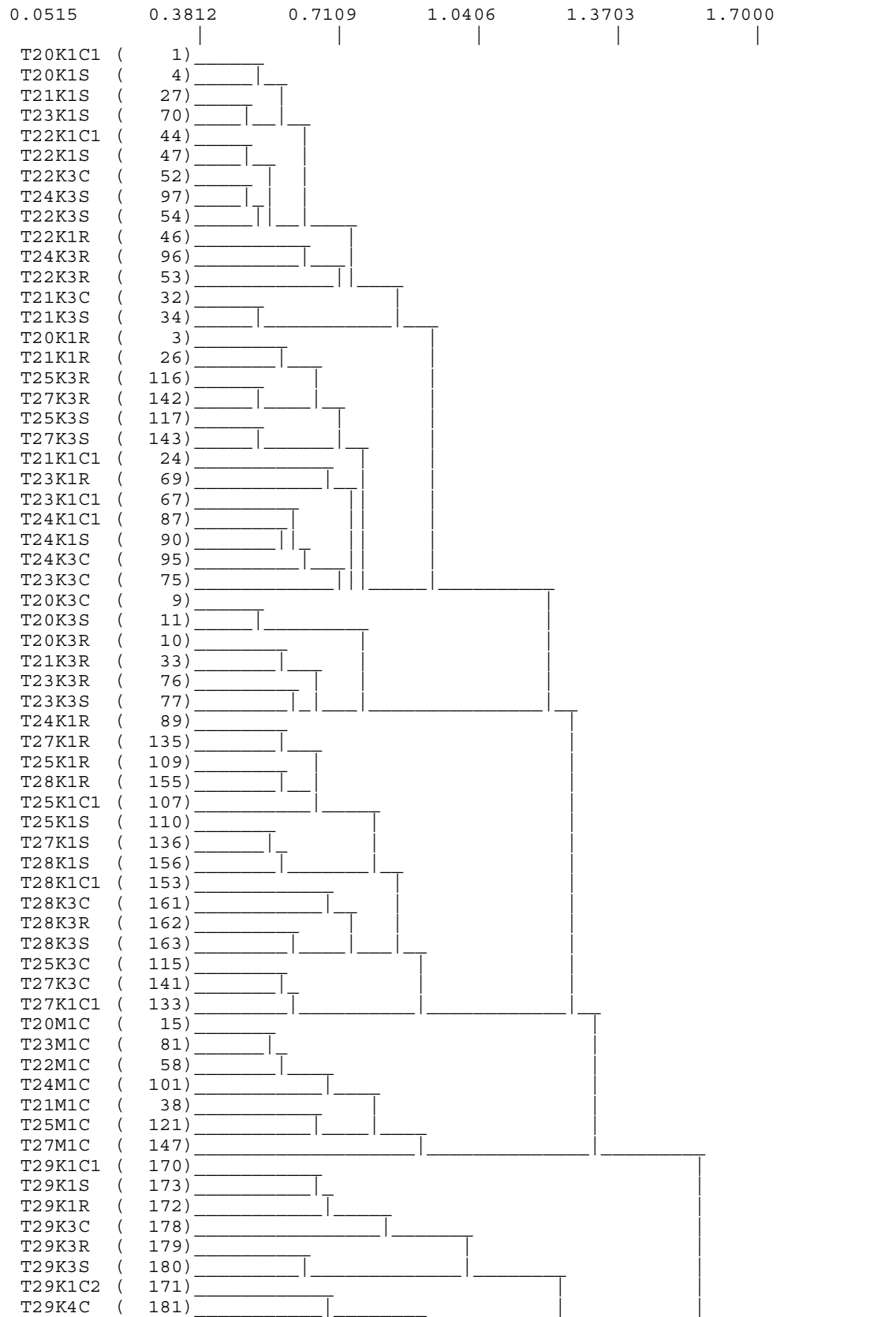
RowLab Code	Position in Code	Applicable Dataset
<u>Time Code</u>		
T01-T30	First three characters	T01-T25, T27-T30, Olympic Dam shrub-count data; T07-T25, T27-T28, Olympic Dam cover data; T20-T25, T27-T29, Billa Kalina enclosure data; T20-T27, Wilpoorinna enclosure data; T20-T27, T29, Dulkaninna enclosure data; T20, T22, T25, T28, Cowarie enclosure data
T1-T5	First two characters	Grazing Experiment data
<u>Location Identifier</u>		
K	Fourth character	All Billa Kalina enclosure data (Kingoonya SCD)
M	Fourth character	All Wilpoorinna, Dulkaninna and Cowarie enclosure data
G	Fourth character	All grazing experiment data
OD	Fourth and fifth characters	All Olympic Dam data
<u>Site Numbers</u>		
1-4	Fifth character	All enclosure data
01-86	Sixth and seventh characters	Olympic Dam data
<u>Site Type</u>		
C	Sixth character	All enclosure data
R	Sixth character	All enclosure data
S	Sixth character	All enclosure data
<u>Other Codes</u>		
<u>Vegetation Association</u>		
1		Olympic Dam cover data Dune vegetation generally dominated by tall shrubland
2		Dune base vegetation with <i>Acacia aneura</i> low woodland
3		Swale vegetation dominated by chenopod shrublands
4		Swale vegetation dominated by <i>Acacia papyrocarpa</i> low woodland
<u>Land Use</u>		
0		Olympic Dam cover data Pastoral lease
1		Undeveloped parts of the Special Mining Lease and not subject to domestic grazing
2		Parts of the Special Mining Lease used for development or exploration purposes, but not subject to domestic grazing
3		The Roxby Downs Municipal Lease, subject to disturbance by town-related activities but not subject to domestic grazing

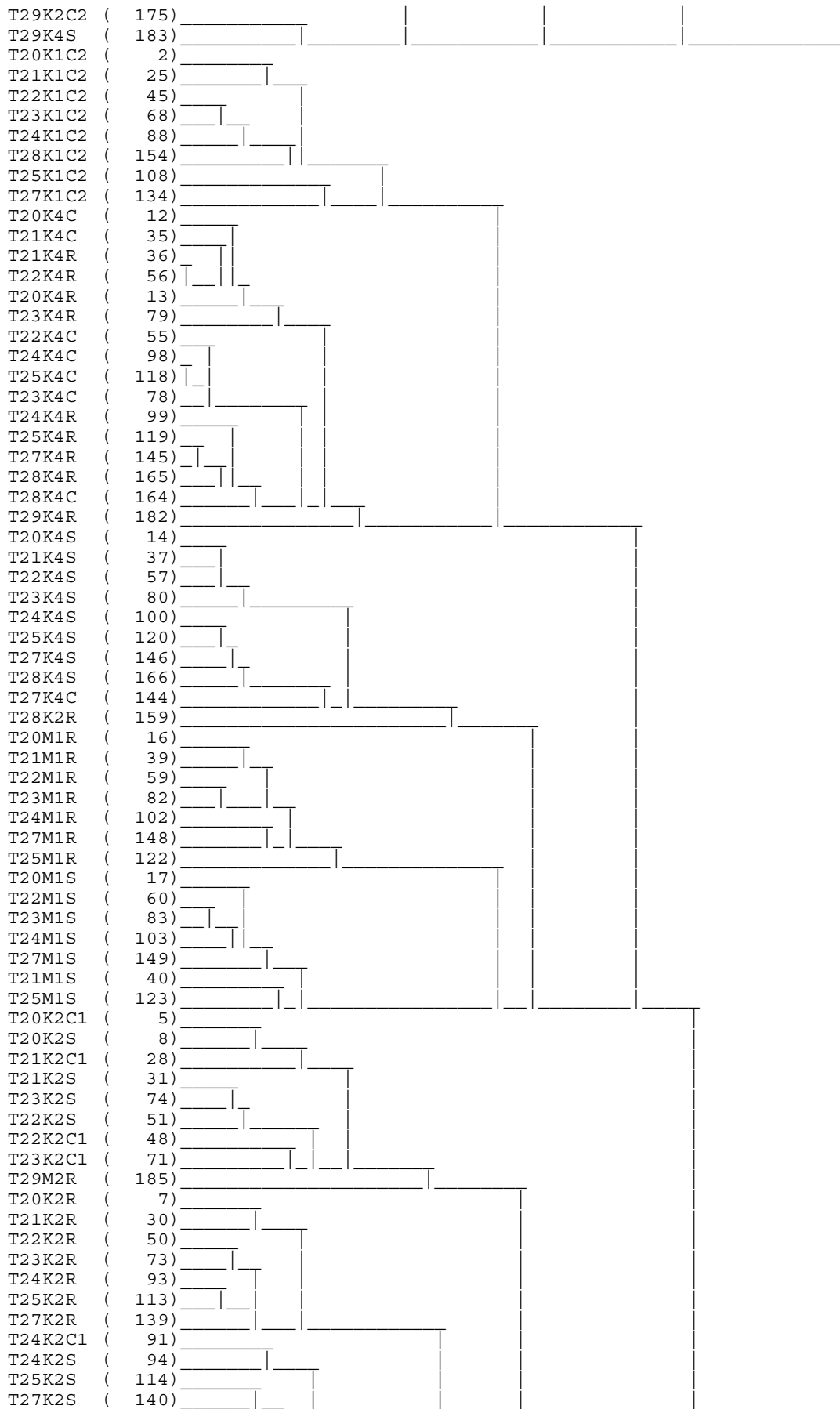
Olympic Dam Site No.	Analysis Site Code	Vegetation Code	Land Use Code
EV001	01	1	3
EV002	02	3	3
EV003	03	1	3
EV005	04	1	2
EV007	05	2	0
EV008	06	3	0
EV009	07	3	0
EV010	08	1	0
EV011	09	1	3
EV012	10	4	0
EV013	11	3	0

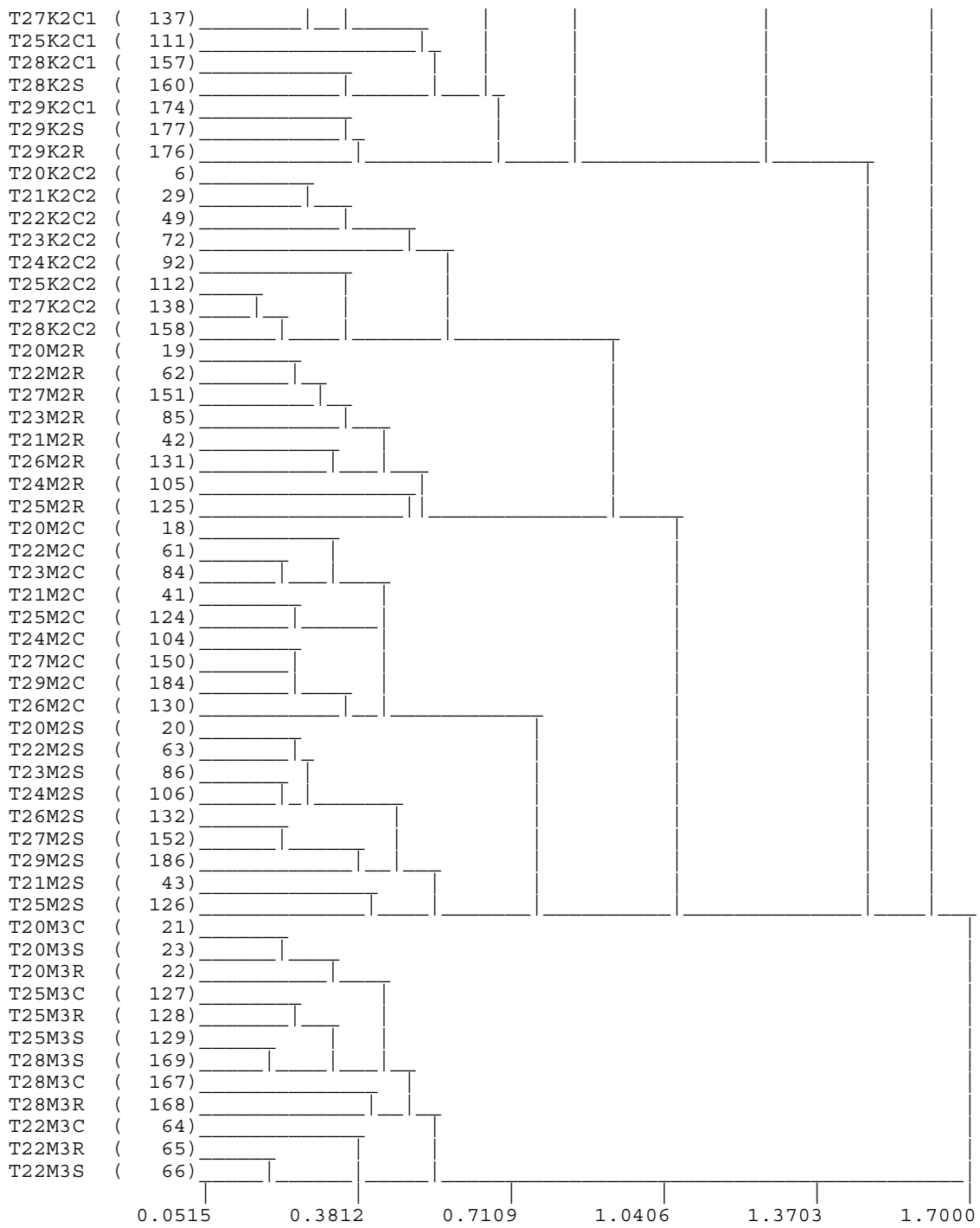
Olympic Dam Site No.	Analysis Site Code	Vegetation Code	Land Use Code
EV014	12	1	0
EV015	13	1	1
EV016	14	3	0
EV017	15	1	1
EV018	16	1	0
EV020	17	1	2
EV021	18	1	1
EV022	19	3	2
EV023	20	2	2
EV024	21	3	2
EV025	22	3	1
EV028	23	4	1
EV031	24	3	0
EV032	25	3	0
EV034	26	3	0
EV035	27	3	2
EV036	28	3	2
EV037	29	1	2
EV038	30	3	1
EV039	31	1	1
EV040	32	1	0
EV041	33	3	0
EV043	34	4	3
EV044	35	4	3
EV046	36	1	3
EV047	37	1	3
EV048	38	4	1
EV049	39	4	1
EV050	40	1	2
EV051	41	1	2
EV054	42	2	1
EV055	43	3	1
EV056	44	2	1
EV057	45	2	1
EV058	46	2	1
EV059	47	2	1
EV060	48	1	2
EV061	49	1	2
EV062	50	4	1
EV063	51	2	1
EV081	52	3	2
EV082	53	1	2
EV083	54	1	2
EV084	55	3	2
EV085	56	1	2
EV086	57	3	2
EV087	58	1	2
EV088	59	3	2
EV095	60	1	2

Olympic Dam Site No.	Analysis Site Code	Vegetation Code	Land Use Code
EV096	61	3	2
EV097	62	3	2
EV099	63	3	2
EV183	64	1	2
EV184	65	3	2
EV185N	66	1	2
EV185S	67	3	2
EV186N	68	3	2
EV186S	69	1	2
EV187	70	1	2
EV197	71	3	0
EV198	72	1	0
EV191N	73	2	3
EV191W	74	2	3
EV192N	75	2	3
EV192S	76	4	3
EV193	77	1	3
EV194	78	1	3
EV195	79	1	3
EV196	80	1	3
EV075	81	3	2
EV076	82	3	2
EV102A	83	3	1
EV112	84	3	0
EV113	85	3	0
EV177	86	3	2

APPENDIX D - DENDROGRAM OF EXCLOSURE COVER DATA







APPENDIX E GROUP MEMBERSHIP AT EXCLOSURE SITES

GROUP:	1	25 MEMBR/S							
T20K1C1 :	1	T20K1S :	4	T22K1C1 :	44	T22K1S :	47		
T22K3C :	52	T22K3S :	54	T24K3S :	97	T22K3R :	53		
T21K1C1 :	24	T23K1C1 :	67	T24K1C1 :	87	T22K1R :	46		
T23K1R :	69	T21K1S :	27	T23K1S :	70	T24K1S :	90		
T20K1R :	3	T21K1R :	26	T25K3S :	117	T27K3S :	143		
T24K3R :	96	T25K3R :	116	T27K3R :	142	T23K3C :	75		
T24K3C :	95								
GROUP:	2	15 MEMBR/S							
T24K1R :	89	T27K1R :	135	T25K1R :	109	T28K1R :	155		
T25K1C1 :	107	T27K1C1 :	133	T25K3C :	115	T27K3C :	141		
T25K1S :	110	T27K1S :	136	T28K1S :	156	T28K1C1 :	153		
T28K3C :	161	T28K3R :	162	T28K3S :	163				
GROUP:	3	8 MEMBR/S							
T20K3C :	9	T21K3C :	32	T21K3S :	34	T20K3S :	11		
T20K3R :	10	T21K3R :	33	T23K3R :	76	T23K3S :	77		
GROUP:	4	7 MEMBR/S							
T20M1C :	15	T23M1C :	81	T22M1C :	58	T24M1C :	101		
T21M1C :	38	T25M1C :	121	T27M1C :	147				
GROUP:	5	22 MEMBR/S							
T20K1C2 :	2	T21K1C2 :	25	T22K1C2 :	45	T23K1C2 :	68		
T24K1C2 :	88	T28K1C2 :	154	T20K4C :	12	T21K4C :	35		
T20K4R :	13	T21K4R :	36	T22K4R :	56	T23K4R :	79		
T22K4C :	55	T24K4C :	98	T25K4C :	118	T23K4C :	78		
T24K4R :	99	T25K4R :	119	T27K4R :	145	T28K4R :	165		
T28K4C :	164	T29K4R :	182						
GROUP:	6	19 MEMBR/S							
T20K4S :	14	T22K4S :	57	T21K4S :	37	T23K4S :	80		
T24K4S :	100	T27K4S :	146	T25K4S :	120	T28K4S :	166		
T25K1C2 :	108	T27K1C2 :	134	T27K4C :	144	T28K2R :	159		
T20M1S :	17	T22M1S :	60	T23M1S :	83	T24M1S :	103		
T25M1S :	123	T27M1S :	149	T21M1S :	40				
GROUP:	7	7 MEMBR/S							
T20M1R :	16	T22M1R :	59	T23M1R :	82	T21M1R :	39		
T24M1R :	102	T27M1R :	148	T25M1R :	122				
GROUP:	8	23 MEMBR/S							
T20K2C1 :	5	T20K2S :	8	T21K2C1 :	28	T21K2S :	31		
T23K2S :	74	T22K2S :	51	T22K2C1 :	48	T23K2C1 :	71		
T20K2R :	7	T21K2R :	30	T22K2R :	50	T23K2R :	73		
T24K2R :	93	T25K2R :	113	T27K2R :	139	T24K2C1 :	91		
T27K2C1 :	137	T24K2S :	94	T25K2S :	114	T27K2S :	140		
T28K2C1 :	157	T28K2S :	160	T25K2C1 :	111				
GROUP:	9	6 MEMBR/S							
T29K1C1 :	170	T29K1S :	173	T29K1R :	172	T29K3C :	178		
T29K3R :	179	T29K3S :	180						

GROUP:	10	7 MEMBR/S					
T29K1C2 :	171	T29K4C :	181	T29K2C2 :	175	T29K4S :	183
T29K2C1 :	174	T29K2R :	176	T29K2S :	177		
GROUP:	11	8 MEMBR/S					
T20K2C2 :	6	T21K2C2 :	29	T22K2C2 :	49	T23K2C2 :	72
T24K2C2 :	92	T25K2C2 :	112	T27K2C2 :	138	T28K2C2 :	158
GROUP:	12	9 MEMBR/S					
T20M2R :	19	T27M2R :	151	T22M2R :	62	T23M2R :	85
T24M2R :	105	T21M2R :	42	T26M2R :	131	T25M2R :	125
T29M2R :	185						
GROUP:	13	18 MEMBR/S					
T20M2C :	18	T22M2C :	61	T23M2C :	84	T21M2C :	41
T25M2C :	124	T24M2C :	104	T27M2C :	150	T26M2C :	130
T29M2C :	184	T20M2S :	20	T22M2S :	63	T23M2S :	86
T24M2S :	106	T26M2S :	132	T27M2S :	152	T29M2S :	186
T21M2S :	43	T25M2S :	126				
GROUP:	14	12 MEMBR/S					
T20M3C :	21	T25M3R :	128	T25M3C :	127	T28M3C :	167
T20M3R :	22	T20M3S :	23	T25M3S :	129	T28M3S :	169
T28M3R :	168	T22M3C :	64	T22M3R :	65	T22M3S :	66

APPENDIX F SIGNIFICANT SPECIES AT EXCLOSURE SITES

List of species that are significant ($p < 0.05$, as determined from the probabilities from the PATN GST files) to the composition of groups identified from a classification of the enclosure sites cover data. Species names in bold font indicate that the mean cover for the species in this group is $>5\%$, generic names in bold font indicate that the mean plus one standard deviation for the species is $>5\%$ and underlined names indicate that the highest mean cover value for the species was recorded in the group.

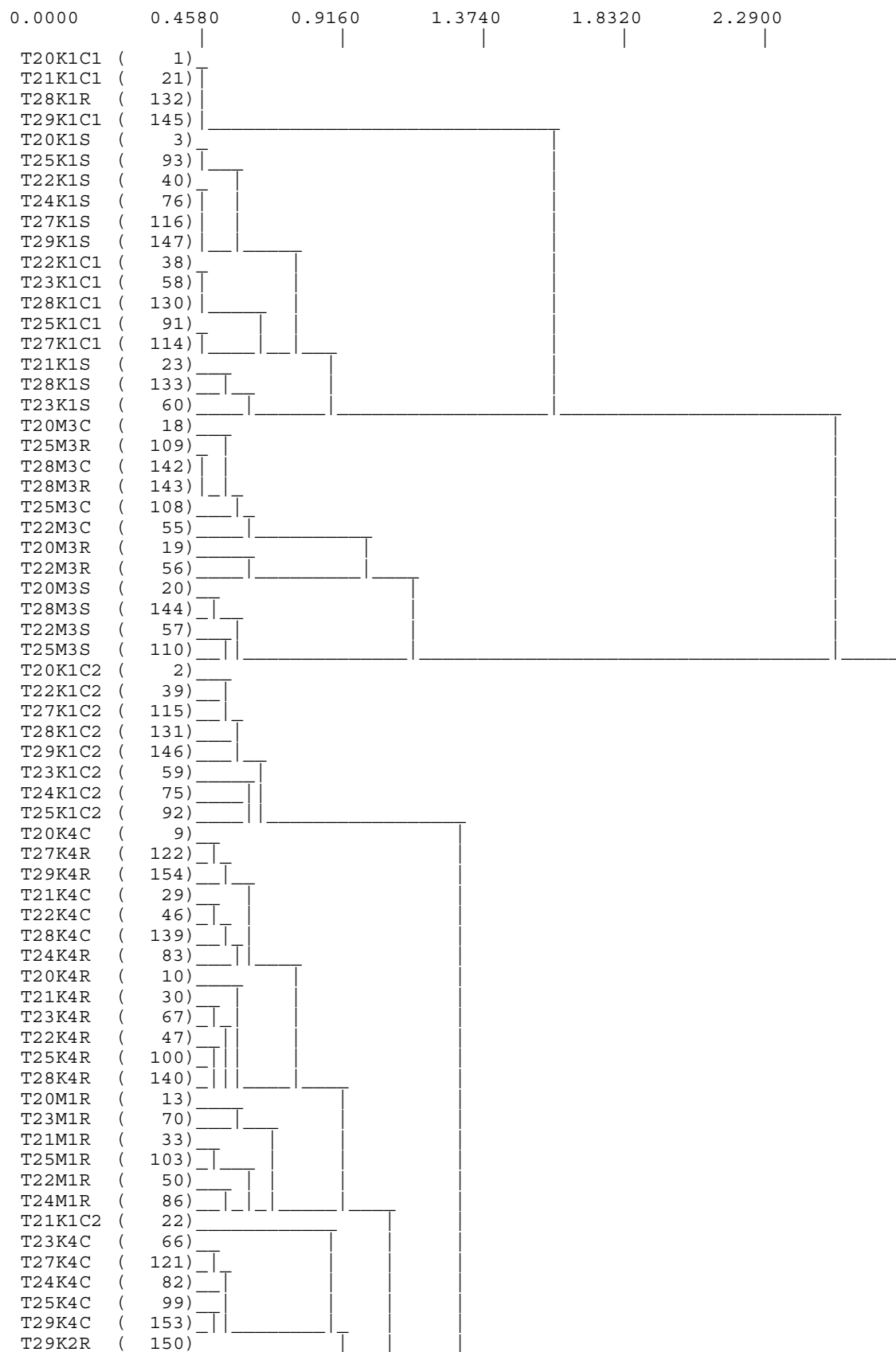
Group 1	<i>Aristida contorta</i> <i>Aristida holathera</i> <i>Atriplex angulata</i> <i>Blennodia canescens</i> <i>Boerhavia dominii</i> <i>Brassica tournefortii</i> <i>Bulbine alata</i> <i>Convolvulus erubescens</i> <i>Cullen pallidum</i> <i>Dactyloctenium radulans</i> <u>Enneapogon avenaceus</u> <i>Eragrostis falcata</i> <i>Euphorbia drummondii</i> <i>Goodenia lunata</i> <u>Gunniopsis quadrifida</u> <i>Lepidium phlebopetalum</i> <i>Maireana astrotricha</i> <i>Omphalolappula concava</i> <u>Osteocarpum acropterum</u>	<i>Othonna gregorii</i> <i>Paractaenum novae-hollandiae</i> <i>Plantago drummondii</i> <i>Polycalymma stuartii</i> <i>Rhodanthe moschata</i> <i>Salsola kali</i> <i>Sclerolaena diacantha</i> <i>Sida ammophila</i> <i>Stenopetalum lineare</i> <i>Swainsona adenophylla</i> <i>Swainsona phacoides</i> <i>Tetragonia eremaea</i> <i>Tragus australianus</i> <i>Trianthema triquetra</i> <i>Tribulus eichlerianus</i> <i>Tripogon loliiformis</i> <i>Triraphis mollis</i> <i>Urochloa praetervisata</i> <i>Zygophyllum simile</i>
Group 2	<i>Aristida contorta</i> <i>Atriplex angulata</i> <i>Atriplex lindleyi</i> <i>Atriplex velutinella</i> <u>Blennodia canescens</u> <i>Brachyscome ciliaris</i> <i>Brassica tournefortii</i> <u>Bulbine alata</u> <i>Convolvulus erubescens</i> <i>Cullen pallidum</i> <i>Dactyloctenium radulans</i> <i>Enneapogon avenaceus</i> <i>Erodium angustifolium</i> <i>Goodenia lunata</i> <i>Gunniopsis quadrifida</i> <i>Lepidium phlebopetalum</i> <i>Maireana astrotricha</i> <i>Minuria cunninghamii</i> <i>Minuria rigida</i>	<u>Omphalolappula concava</u> <i>Osteocarpum acropterum</i> <i>Othonna gregorii</i> <u>Plantago drummondii</u> <i>Polycalymma stuartii</i> <i>Ptilotus sessilifolius</i> <u>Rhodanthe moschata</u> <i>Rostraria pumila</i> <i>Salsola kali</i> <i>Sclerolaena diacantha</i> <i>Sida ammophila</i> <u>Stenopetalum lineare</u> <u>Swainsona adenophylla</u> <i>Tetragonia eremaea</i> <i>Tragus australianus</i> <i>Tribulus eichlerianus</i> <i>Tripogon loliiformis</i> <i>Urochloa praetervisata</i> <u>Zygophyllum simile</u>
Group 3	<i>Aristida contorta</i> <u>Aristida holathera</u> <i>Atriplex velutinella</i> <i>Blennodia canescens</i> <u>Brassica tournefortii</u> <i>Bulbine alata</i> <i>Convolvulus erubescens</i> <i>Cullen pallidum</i> <u>Enneapogon avenaceus</u> <i>Enneapogon cylindricus</i> <i>Eragrostis basedowii</i> <u>Eragrostis falcata</u> <i>Erodium angustifolium</i> <i>Maireana astrotricha</i>	<u>Othonna gregorii</u> <u>Paractaenum novaehollandiae</u> <i>Plantago drummondii</i> <u>Polycalymma stuartii</u> <i>Rhodanthe moschata</i> <u>Rostraria pumila</u> <i>Salsola kali</i> <i>Sclerolaena diacantha</i> <u>Sida ammophila</u> <i>Stenopetalum lineare</i> <u>Swainsona phacoides</u> <i>Tetragonia eremaea</i> <i>Triraphis mollis</i> <i>Zygophyllum simile</i>
Group 4	<i>Aristida contorta</i> <i>Atriplex lindleyi</i>	<i>Lepidium phlebopetalum</i> <u>Maireana aphylla</u>

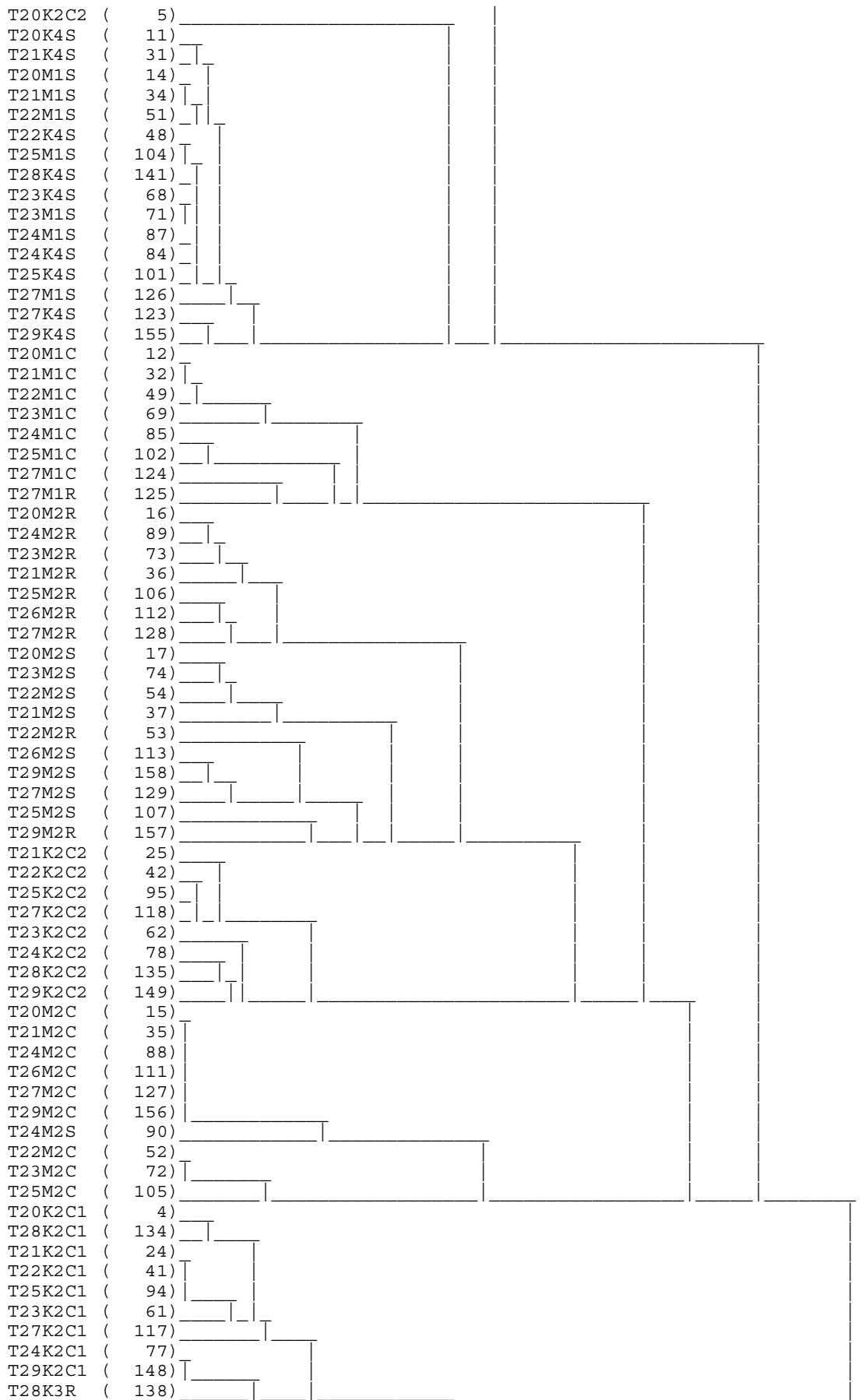
	Atriplex vesicaria	<u>Maireana appressa</u>
	Boerhavia dominii	Maireana astrotricha
	Brachyscome ciliaris	Malvastrum americanum
	Brassica tournefortii	Omphalolappula concava
	Bulbine alata	Rhodanthe moschata
	Calotis plumulifera	Salsola kali
	Convolvulus erubescens	Sclerolaena diacantha
	Cullen pallidum	Sida ammophila
	Enneapogon avenaceus	Sida fibulifera
	Enneapogon cylindricus	Stenopetalum lineare
	Eragrostis falcata	Tetragonia eremaea
	<u>Gnephosis arachnoidea</u>	Tribulus eichlerianus
Group 5	Aristida contorta	Maireana aphylla
	Atriplex lindleyi	Maireana appressa
	Atriplex vesicaria	Maireana astrotricha
	Brassica tournefortii	Minuria cunninghamii
	Bulbine alata	Plantago drummondii
	Convolvulus erubescens	Polycalymma stuartii
	Cullen pallidum	Rhodanthe moschata
	Dactyloctenium radulans	Salsola kali
	Enneapogon avenaceus	Sclerolaena diacantha
	Enneapogon cylindricus	Sclerolaena lanicuspis
	Eragrostis falcata	Sclerolaena ventricosa
	Eriochiton sclerolaenoides	Stenopetalum lineare
	Erodium angustifolium	Swainsona adenophylla
	Gnephosis arachnoidea	Tragus australianus
	Gunniopsis quadrifida	Tribulus terrestris
	Iseilema membranaceum	Tripogon loliiformis
	Lepidium phlebopetalum	Triraphis mollis
Group 7	<u>Acacia aneura</u>	Maireana astrotricha
	Aristida contorta	<u>Maireana pyramidata</u>
	Atriplex lindleyi	<u>Malvastrum americanum</u>
	<u>Atriplex velutinella</u>	Omphalolappula concava
	Atriplex vesicaria	Pimelea simplex
	Brachyscome ciliaris	<u>Rhagodia spinescens</u>
	Brassica tournefortii	Rhodanthe moschata
	Bulbine alata	Salsola kali
	Calotis plumulifera	Sclerolaena brachyptera
	Convolvulus erubescens	Sclerolaena diacantha
	Dactyloctenium radulans	Sclerolaena ventricosa
	Enneapogon avenaceus	Sida ammophila
	<u>Enneapogon cylindricus</u>	Sida fibulifera
	Eragrostis falcata	Sporobolus actinocladus
	Eriochiton sclerolaenoides	Stenopetalum lineare
	Euphorbia drummondii	<u>Tetragonia eremaea</u>
	Gnephosis arachnoidea	Tribulus eichlerianus
	Lepidium phlebopetalum	Tribulus terrestris
	Maireana appressa	
Group 8	Aristida contorta	Rhodanthe moschata
	<u>Atriplex lindleyi</u>	Salsola kali
	Atriplex vesicaria	Sclerolaena brachyptera
	Brassica tournefortii	Sclerolaena diacantha
	Bulbine alata	Sclerolaena intricata
	Convolvulus erubescens	<u>Sclerolaena lanicuspis</u>
	Cullen pallidum	Sclerolaena parallelicuspis
	Enneapogon avenaceus	Sclerolaena ventricosa
	Enneapogon cylindricus	Sporobolus actinocladus
	Eragrostis falcata	Stenopetalum lineare
	Eriochiton sclerolaenoides	Swainsona adenophylla
	Gnephosis arachnoidea	Swainsona phacoides

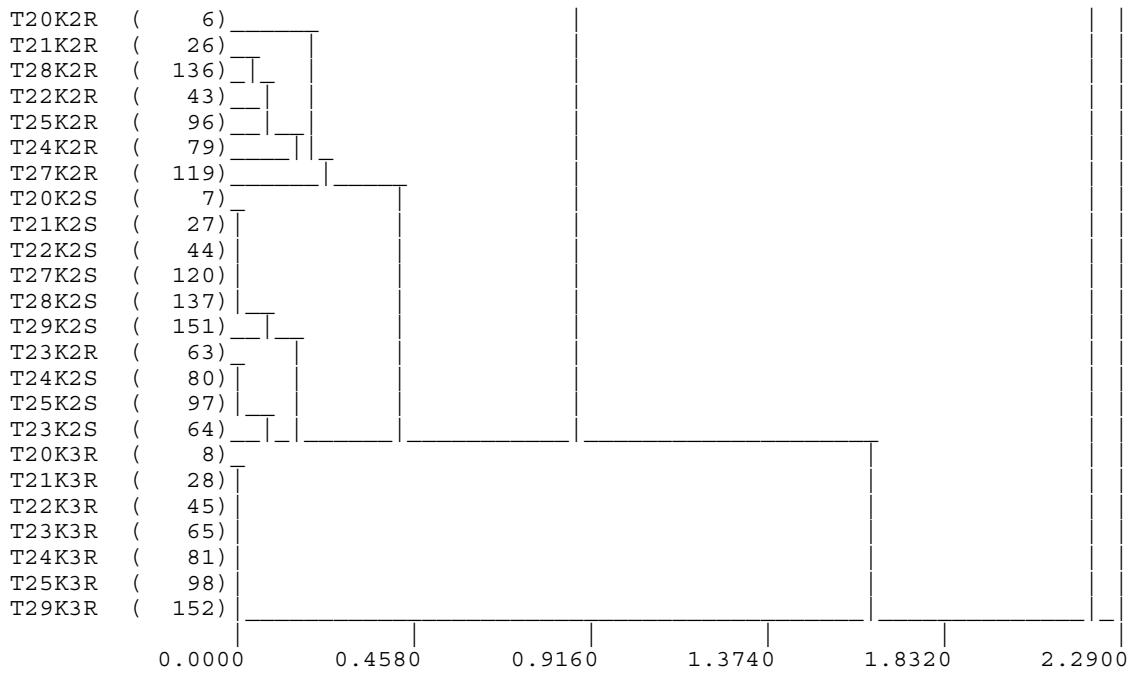
	Lepidium phlebopetalum Maireana astrotricha Maireana pyramidata Omphalolappula concava Osteocarpum acropterum Othonna gregorii Plantago drummondii	Tetragonia eremaea Tragus australianus Trianthema triquetra Tripogon loliiformis Triraphis mollis Urochloa praetervisiva
Group 9	<u>Amaranthus mitchellii</u> Aristida contorta Aristida holathera Atriplex lindleyi Atriplex velutinella Boerhavia dominii Brachyscome ciliaris Brassica tournefortii Bulbine alata <u>Convolvulus erubescens</u> <u>Cullen pallidum</u> <u>Cyperus bulbosus</u> Dactyloctenium radulans Enneapogon avenaceus Enneapogon cylindricus Eragrostis basedowii Erodium angustifolium <u>Euphorbia drummondii</u> <u>Goodenia lunata</u> Goodenia pinnatifida	Gunniopsis quadrifida Lepidium phlebopetalum Maireana astrotricha Minuria cunninghamii Othonna gregorii Paractaenum novaehollandiae Polycalymma stuartii Ptilotus sessilifolius Salsola kali Sclerolaena diacantha Sida ammophila Stenopetalum lineare Swainsona adenophylla Tragus australianus Trianthema triquetra Tribulus eichlerianus Tripogon loliiformis Triraphis mollis <u>Urochloa praetervisiva</u>
Group 10	Aristida contorta Atriplex lindleyi Atriplex vesicaria Boerhavia dominii Convolvulus erubescens Cullen pallidum Dactyloctenium radulans Enneapogon avenaceus Enneapogon cylindricus Eriochiton sclerolaenoides Euphorbia drummondii Frankenia serpyllifolia Gnephosis arachnoidea Gunniopsis quadrifida Lepidium phlebopetalum Maireana appressa	Maireana astrotricha Maireana pyramidata Salsola kali Sclerolaena brachyptera Sclerolaena diacantha Sclerolaena intricata Sclerolaena lanicuspis Sclerolaena ventricosa Sporobolus actinocladus Swainsona adenophylla Tragus australianus <u>Trianthema triquetra</u> <u>Tribulus terrestris</u> Tripogon loliiformis Triraphis mollis
Group 11	Aristida contorta Atriplex vesicaria Bulbine alata Convolvulus erubescens Enneapogon avenaceus Eriochiton sclerolaenoides Euphorbia drummondii <u>Frankenia serpyllifolia</u> Gnephosis arachnoidea Goodenia lunata Goodenia pinnatifida Iseilema membranaceum Lepidium phlebopetalum Maireana astrotricha	Maireana pyramidata <u>Minuria cunninghamii</u> Plantago drummondii Salsola kali <u>Sclerolaena brachyptera</u> <u>Sclerolaena intricata</u> Sclerolaena lanicuspis Sclerolaena parallelicuspis Sclerolaena ventricosa Sporobolus actinocladus Stenopetalum lineare <u>Tripogon loliiformis</u> Triraphis mollis
Group 12	Anemocarpa podolepidium Aristida contorta	<u>Goodenia pinnatifida</u> Iseilema membranaceum

	<u>Astrebla pectinata</u> Atriplex lindleyi Atriplex vesicaria Boerhavia dominii <u>Brachyscome ciliaris</u> Brassica tournefortii Convolvulus erubescens <u>Cullen australasicum</u> Dactyloctenium radulans <u>Dichromochlamys dentatifolius</u> <u>Digitaria coenicola</u> Enneapogon avenaceus Enneapogon cylindricus Eriochiton sclerolaenoides Euphorbia drummondii Frankenia serpyllifolia Gnephosis arachnoidea Gnephosis eriocarpa Goodenia lunata	<u>Lepidium phlebopetalum</u> Maireana aphylla <u>Minuria rigida</u> Pimelea simplex Plantago drummondii Portulaca intraterranea Rhodanthe moschata Salsola kali Sclerolaena brachyptera Sclerolaena diacantha Sclerolaena ventricosa Sida ammophila <u>Sida fibulifera</u> Sporobolus actinocladus Stenopetalum lineare Tetragonia tetragonioides Trianthema triquetra Tripogon loliiformis
Group 13	<u>Anemocarpa podolepidium</u> Aristida contorta Astrebla pectinata Atriplex lindleyi Atriplex vesicaria Boerhavia dominii Convolvulus erubescens Cullen australasicum Dactyloctenium radulans Dichromochlamys dentatifolius Digitaria coenicola Enneapogon avenaceus Eriochiton sclerolaenoides Euphorbia drummondii Frankenia serpyllifolia Gnephosis arachnoidea Gnephosis eriocarpa	Goodenia pinnatifida <u>Iseilema membranaceum</u> Lepidium phlebopetalum Pimelea simplex Plantago drummondii Rhodanthe moschata Sclerolaena brachyptera Sclerolaena diacantha Sclerolaena lanicuspis Sclerolaena ventricosa Sida fibulifera <u>Sporobolus actinocladus</u> Stenopetalum lineare Tetragonia tetragonioides Tragus australianus Trianthema triquetra Tripogon loliiformis
Group 14	<u>Arabidella erimegena</u> Aristida contorta <u>Atriplex angulata</u> <u>Boerhavia dominii</u> Bulbine alata <u>Calotis plumulifera</u> <u>Chenopodium auricomum</u> Dactyloctenium radulans Eriochiton sclerolaenoides <u>Gnephosis eriocarpa</u> <u>Heliotropium tenuifolium</u>	<u>Marsilea drummondii</u> <u>Muehlenbeckia florulenta</u> <u>Peplidium foecundum</u> Plantago drummondii Portulaca intraterranea Salsola kali <u>Sclerolaena bicornis</u> Sclerolaena intricata <u>Tetragonia tetragonioides</u> <u>Tragus australianus</u>

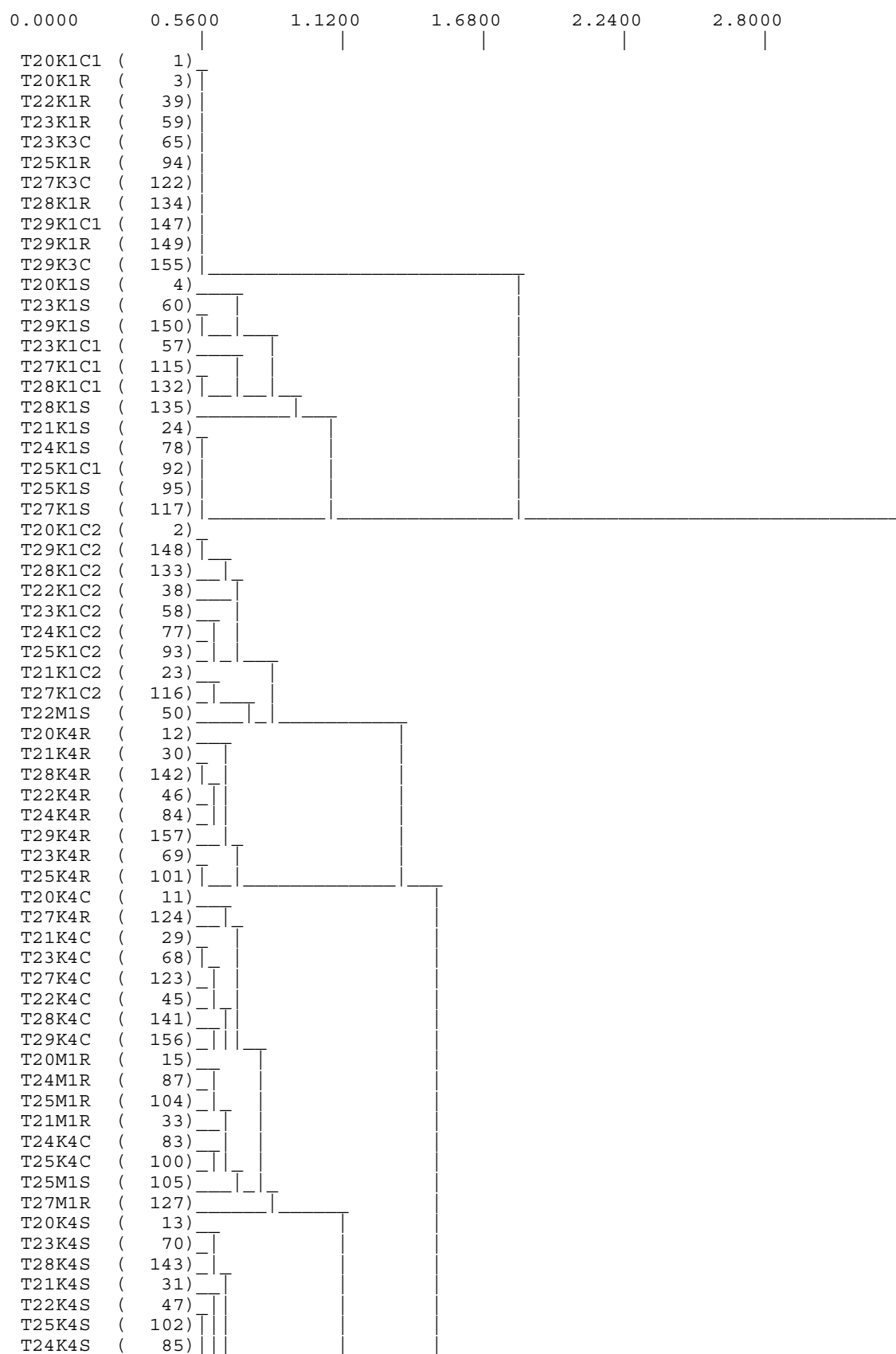
APPENDIX G DENDROGRAM OF THE EXCLOSURE ADULT SHRUB DENSITY DATA

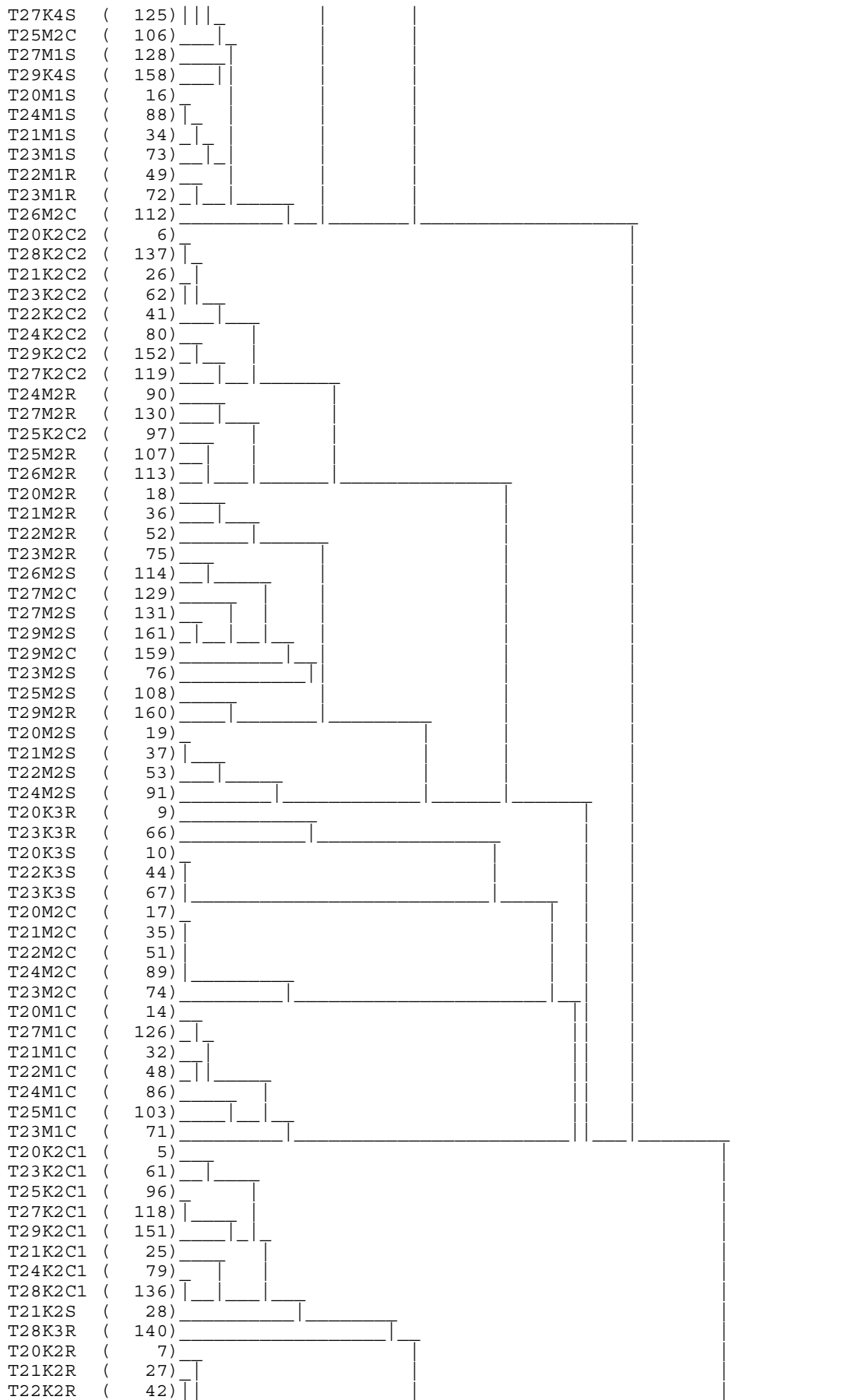


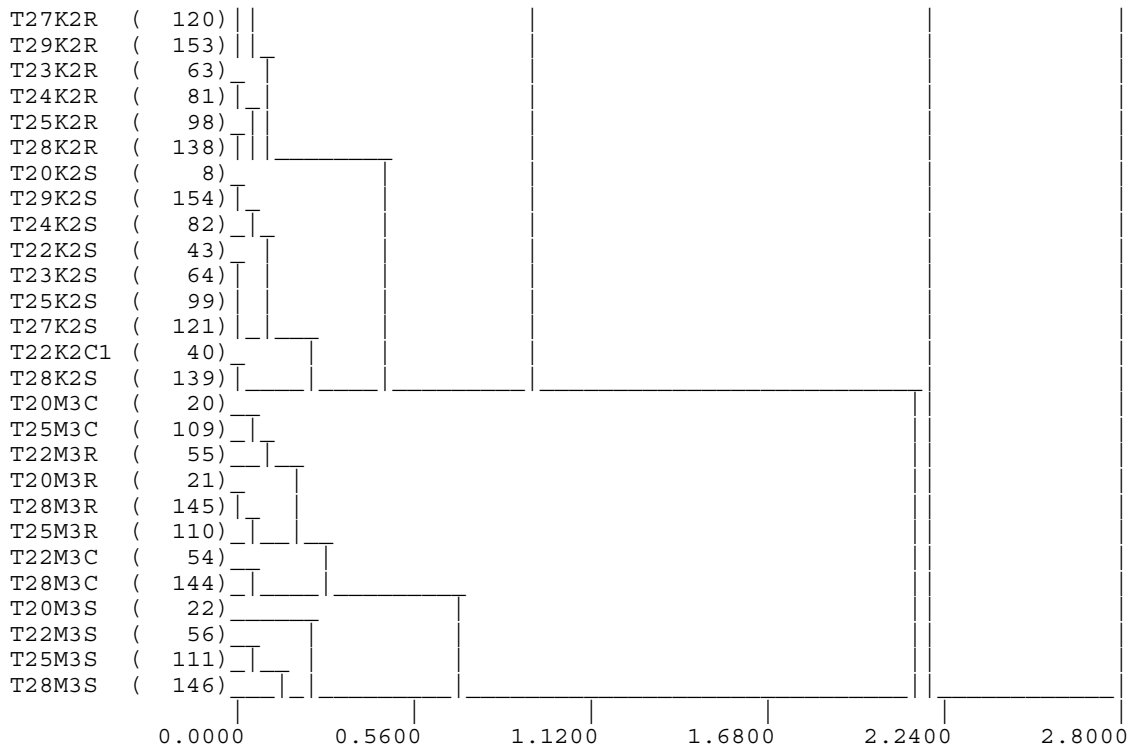




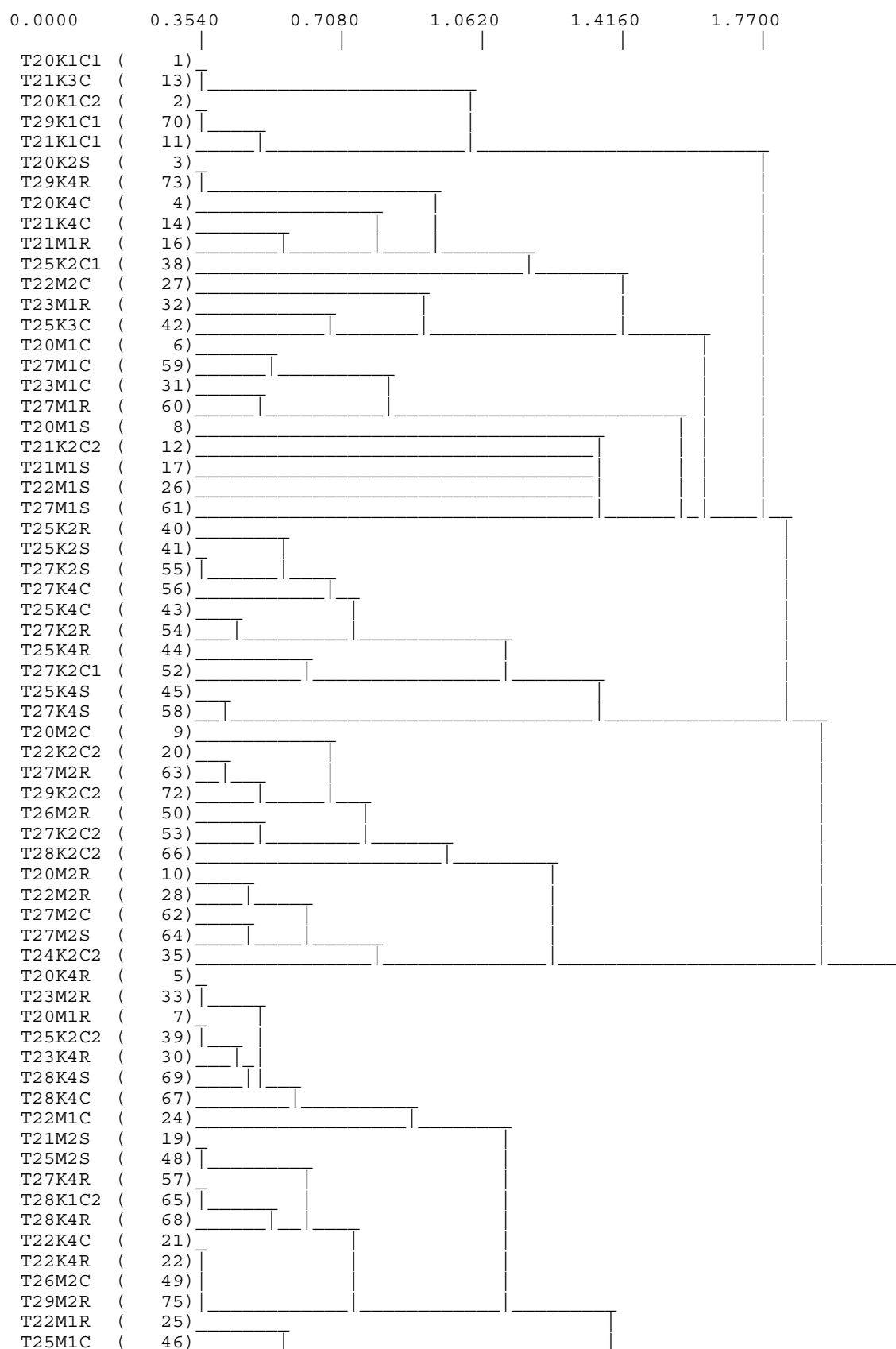
APPENDIX H DENDROGRAM OF THE EXCLOSURE ADULT SHRUB COUNT DATA

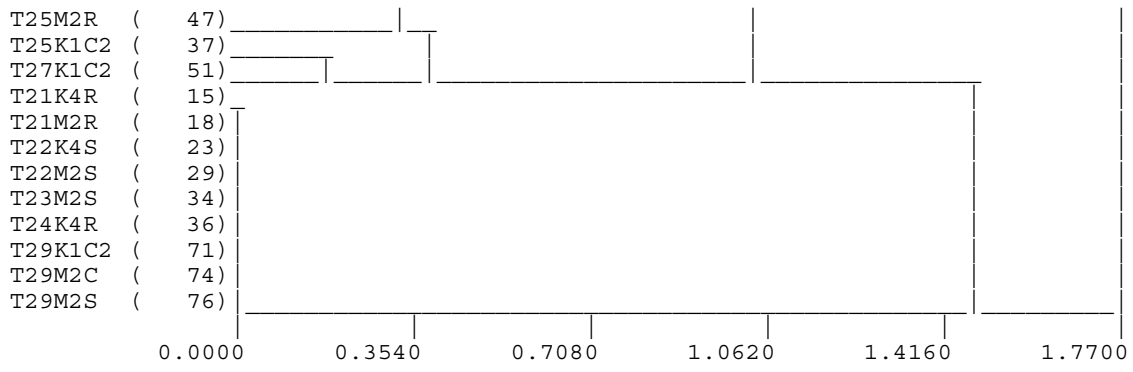




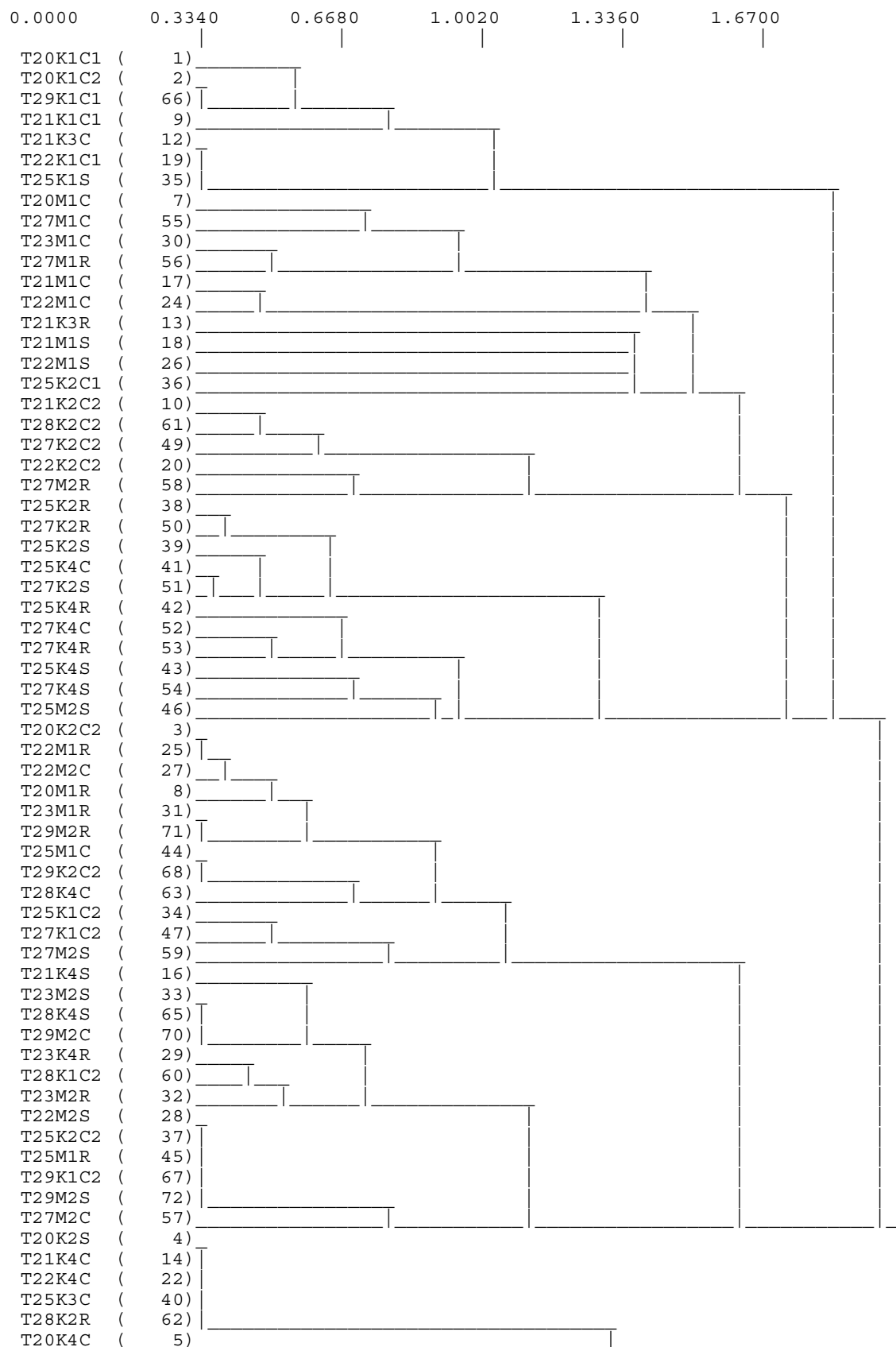


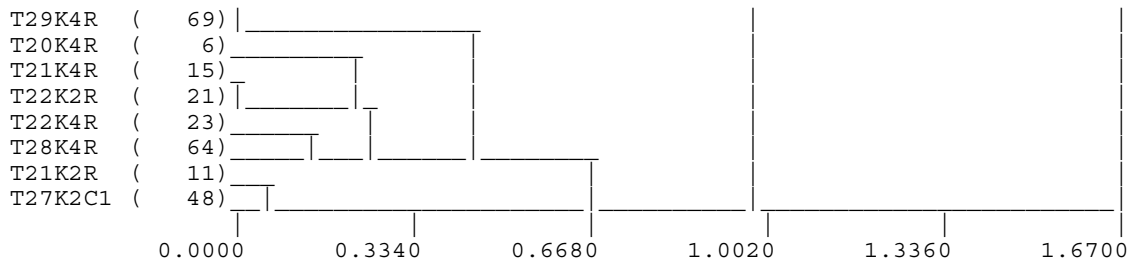
APPENDIX I DENDROGRAM OF THE ENCLOSURE JUVENILE SHRUB DENSITY DATA



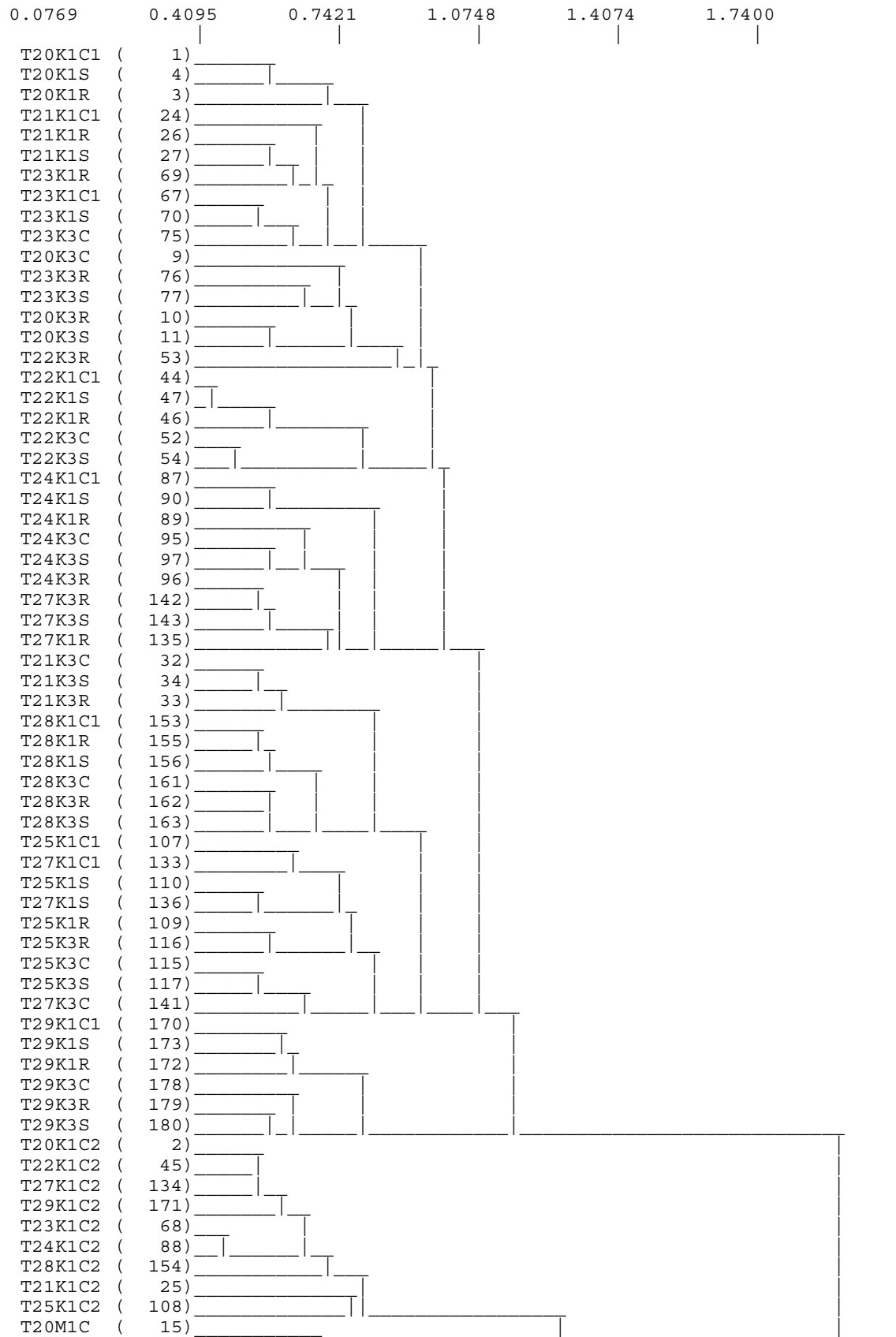


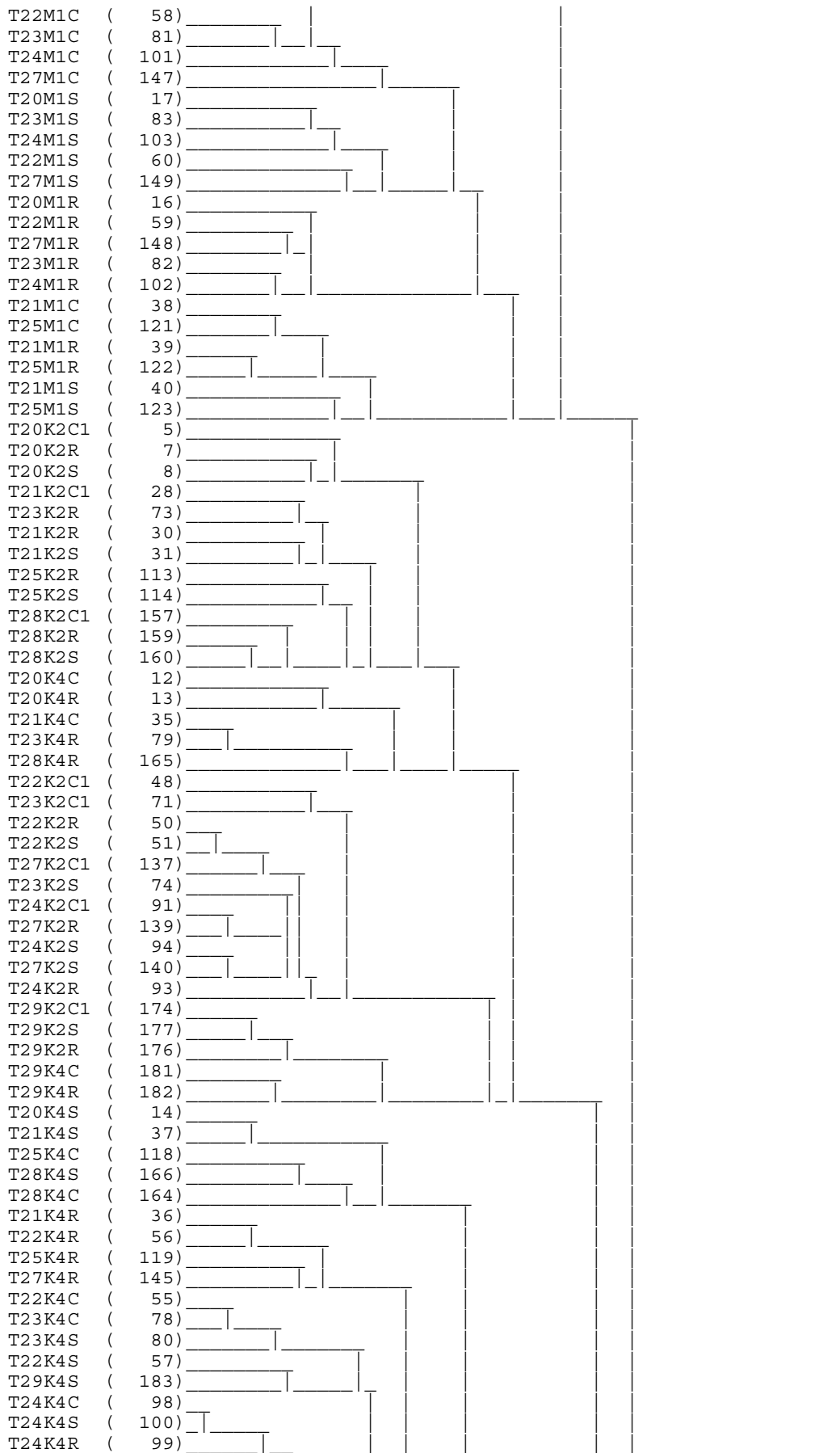
APPENDIX J DENDROGRAM OF THE ENCLOSURE JUVENILE SHRUB COUNT DATA

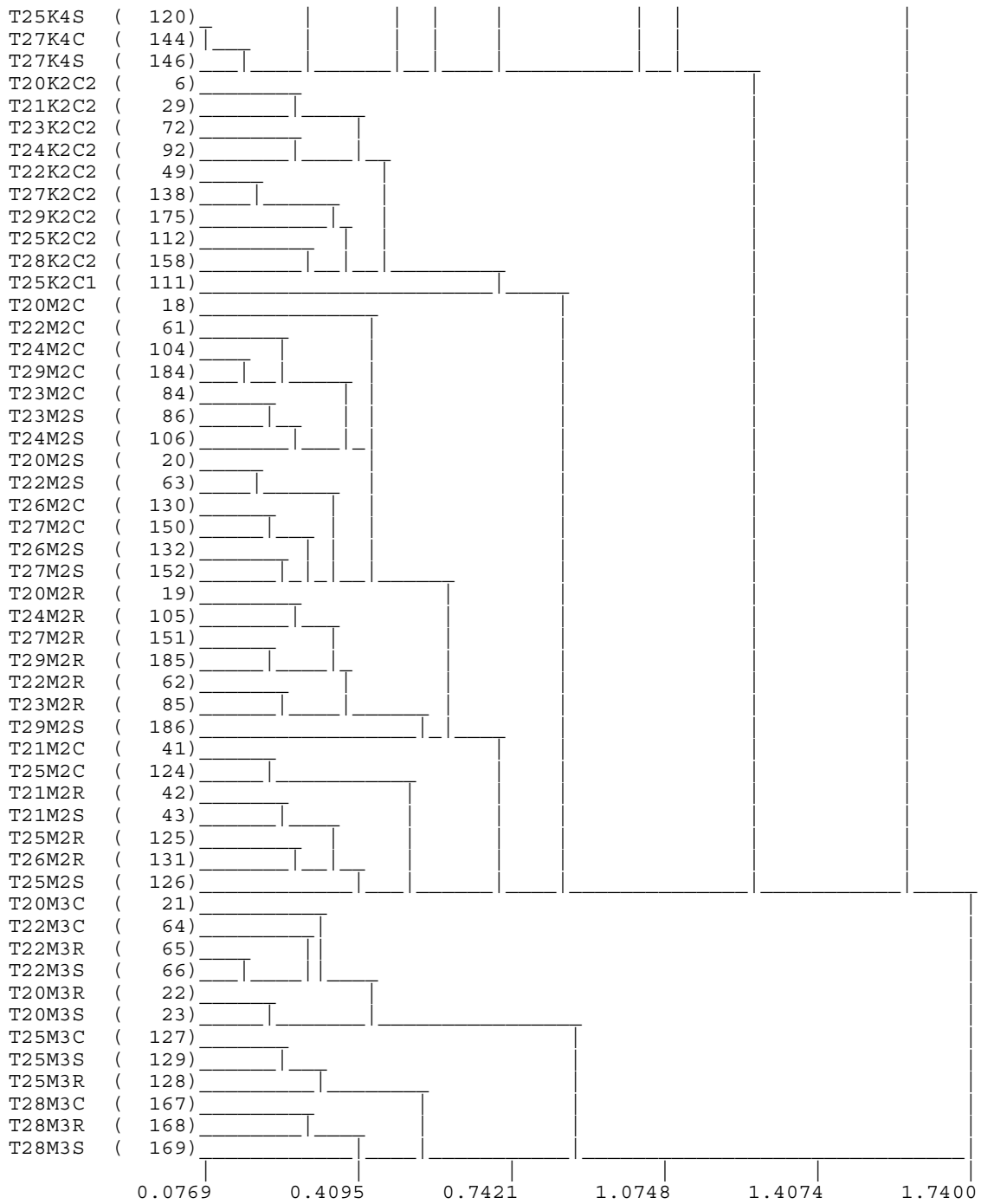




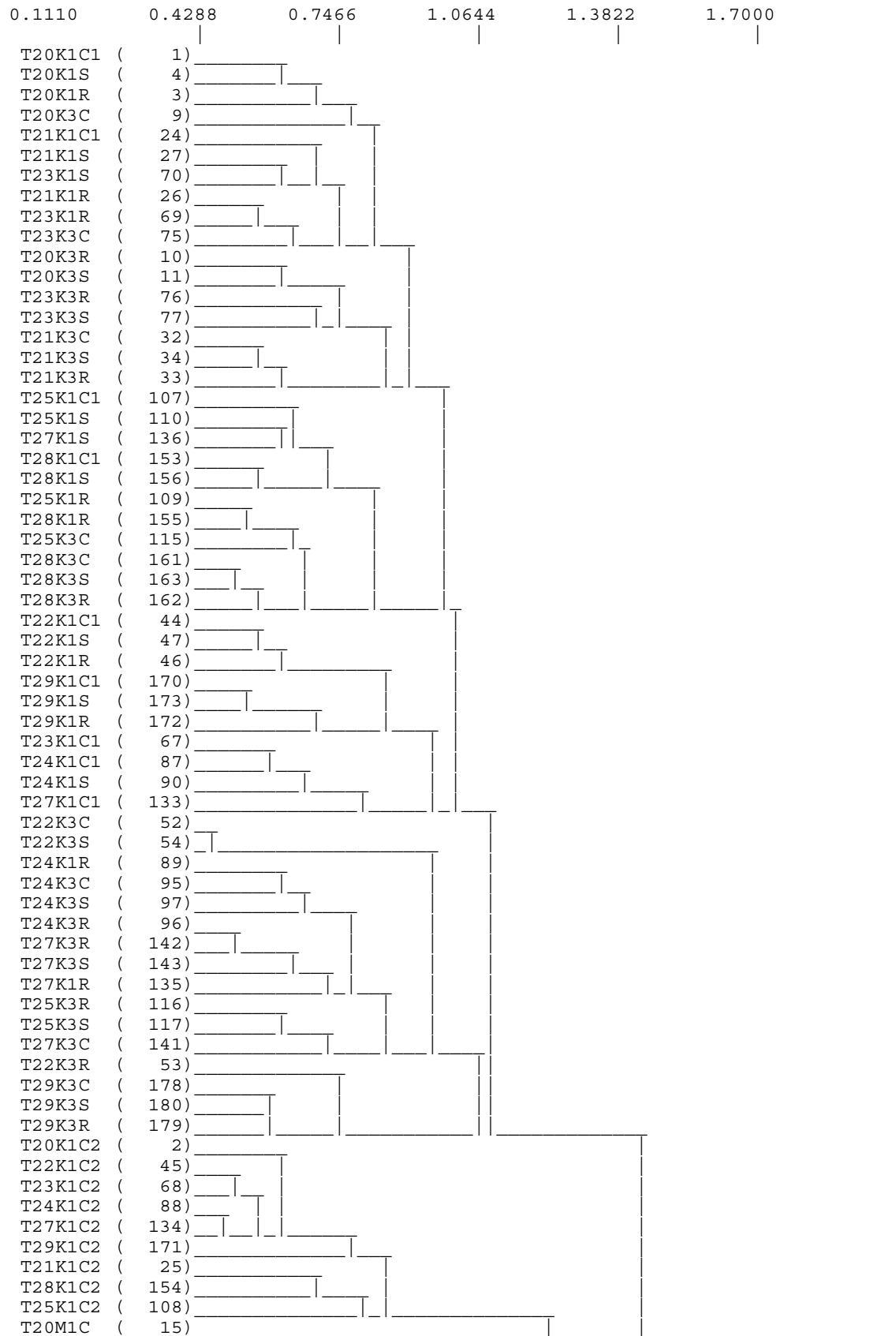
APPENDIX K DENDROGRAM OF THE EXCLOSURES 20M² QUADRAT DATA

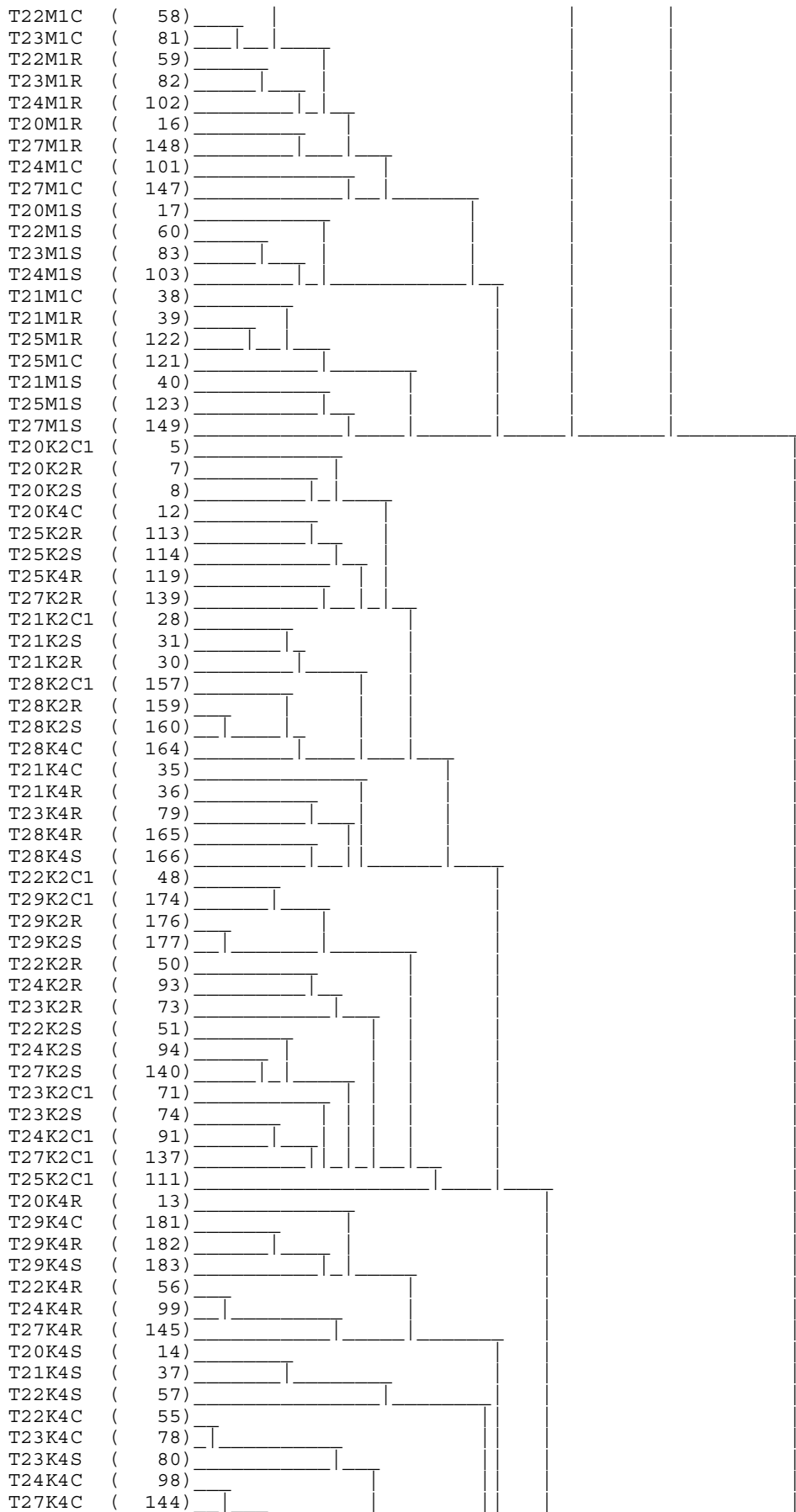


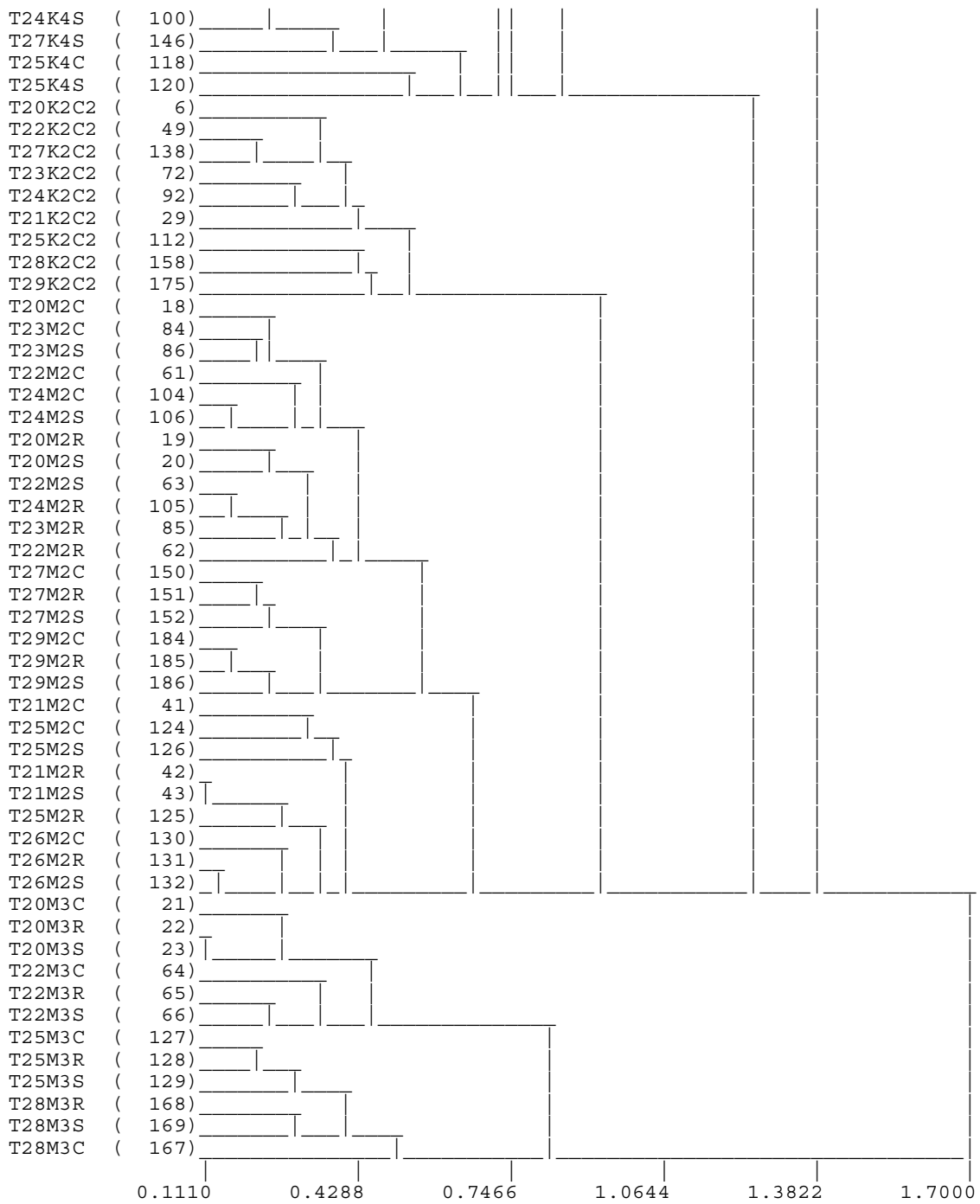




APPENDIX L DENDROGRAM OF THE 2500M² EXCLOSURE DATA





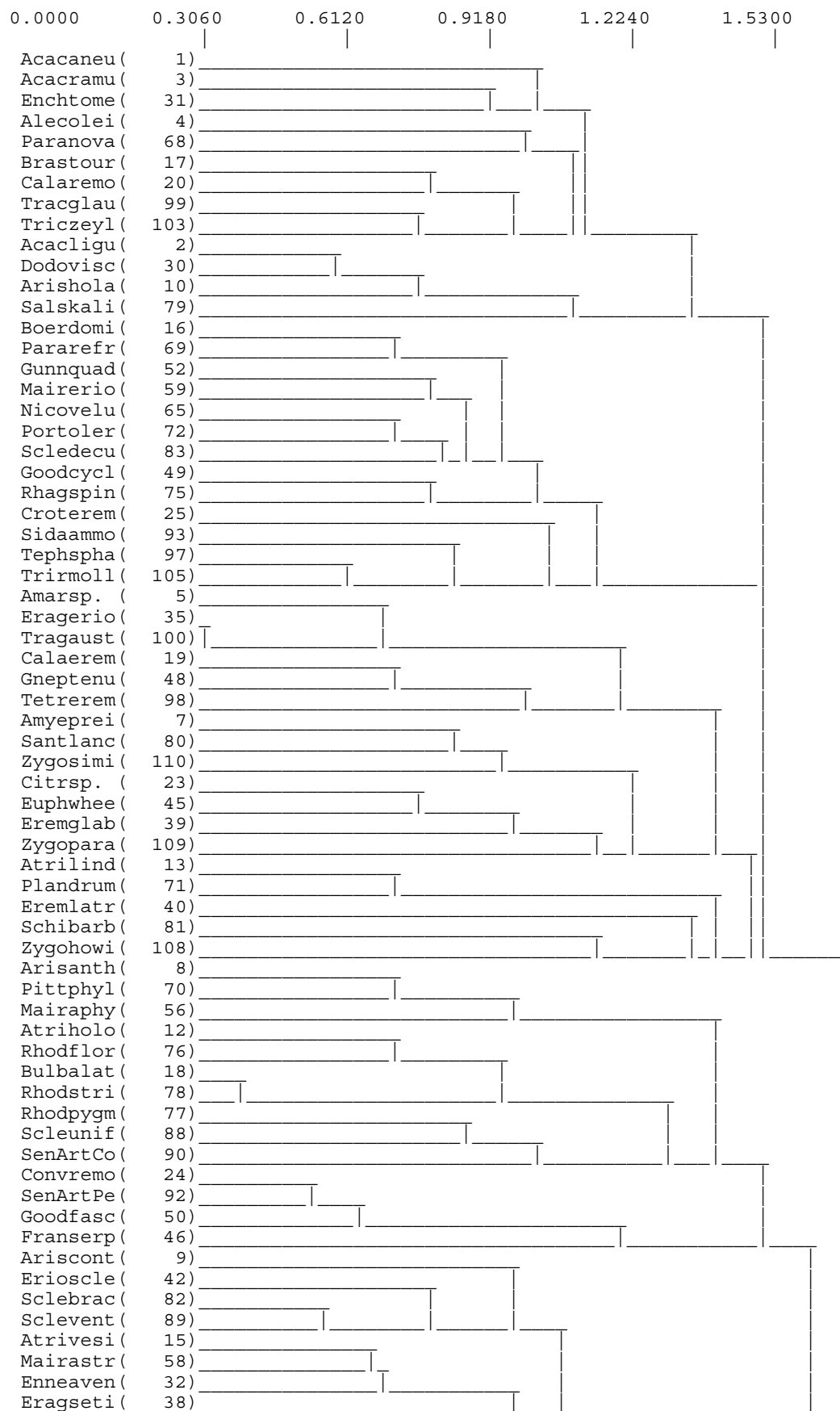


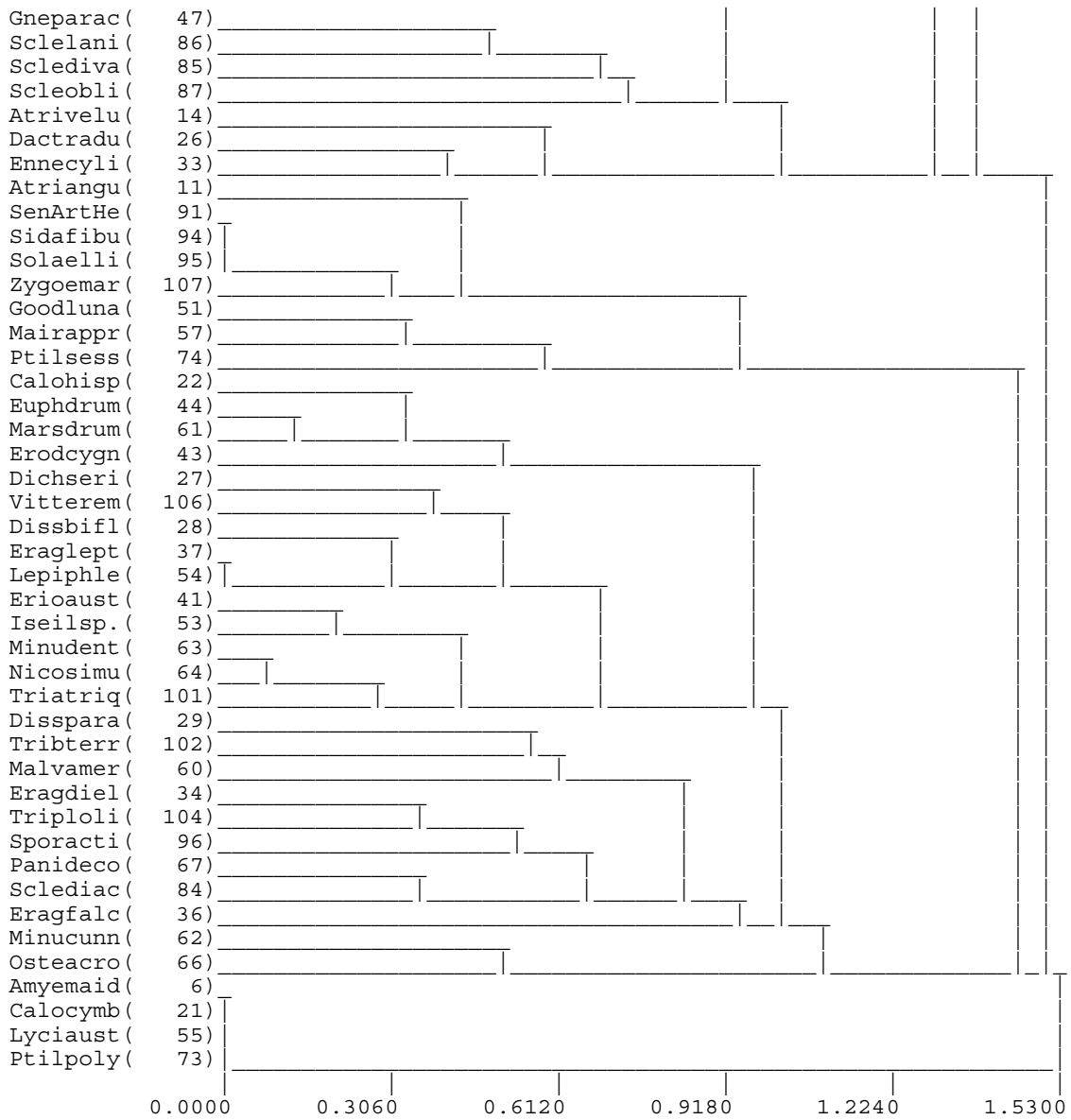
APPENDIX M SIGNIFICANT SPECIES AT GRAZING EXPERIMENT SITES

List of species that are significant ($p < 0.05$) to the composition of groups identified from a classification of the enclosure sites cover data. Species names in bold font indicate that the mean cover for the species in this group is $>5\%$, generic names in bold font indicate that the mean plus one standard deviation for the species is $>5\%$ and underlined names indicate that the highest mean cover value for the species was recorded in the group.

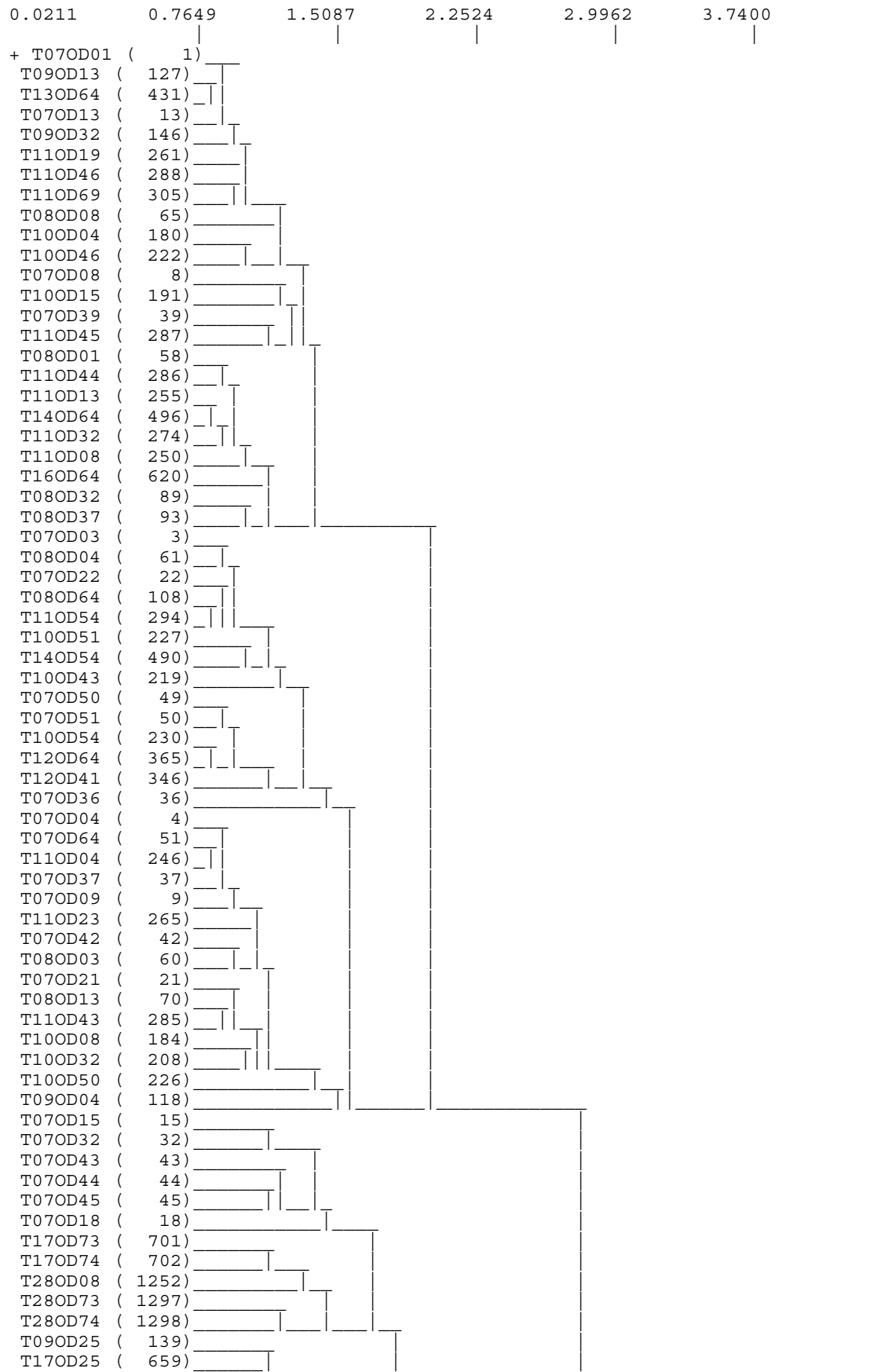
Group 1	Acacia ligulata <u>Atriplex vesicaria</u> Enchylaena tomentosa <u>Enneapogon avenaceus</u> Eriochiton sclerolaenoides	<u>Gnephosis arachnoidea</u> Maireana astrotricha <u>Sclerolaena brachyptera</u> <u>Sclerolaena obliquicuspis</u> Sclerolaena ventricosa
Group 2	Acacia ligulata Atriplex vesicaria Dodonaea viscosa <u>Enchylaena tomentosa</u> Enneapogon avenaceus Eriochiton sclerolaenoides	Gnephosis arachnoidea Maireana astrotricha Sclerolaena brachyptera Sclerolaena obliquicuspis Sclerolaena ventricosa
Group 3	Acacia ligulata Atriplex vesicaria <u>Dactyloctenium radulans</u> <u>Dichanthium sericeum</u> Dodonaea viscosa Enneapogon avenaceus <u>Eragrostis dielsii</u>	<u>Eriochiton sclerolaenoides</u> <u>Maireana astrotricha</u> Sclerolaena brachyptera Sclerolaena obliquicuspis <u>Sclerolaena ventricosa</u> <u>Tribulus terrestris</u> <u>Tripogon loliiformis</u>
Group 4	Acacia ligulata Atriplex vesicaria Dodonaea viscosa Enneapogon avenaceus Eriochiton sclerolaenoides	Gnephosis arachnoidea Maireana astrotricha Sclerolaena brachyptera Sclerolaena ventricosa
Group 5	Acacia ligulata <u>Acacia ramulosa</u> <u>Aristida holathera</u> Atriplex vesicaria Dactyloctenium radulans <u>Dodonaea viscosa</u>	Enchylaena tomentosa Enneapogon avenaceus Maireana astrotricha Paractaenum refractum Sclerolaena obliquicuspis
Group 6	<u>Acacia ligulata</u> Acacia ramulosa Aristida holathera Atriplex vesicaria	Dodonaea viscosa Enchylaena tomentosa Enneapogon avenaceus Maireana astrotricha
Group 7	Acacia ligulata Acacia ramulosa Aristida holathera Atriplex vesicaria Dactyloctenium radulans Dodonaea viscosa Enchylaena tomentosa	Enneapogon avenaceus Eragrostis dielsii Maireana astrotricha <u>Paractaenum refractum</u> Sclerolaena ventricosa <u>Triraphis mollis</u>

APPENDIX N DENDROGRAM OF TWO-WAY ANALYSIS AT GRAZING SITES

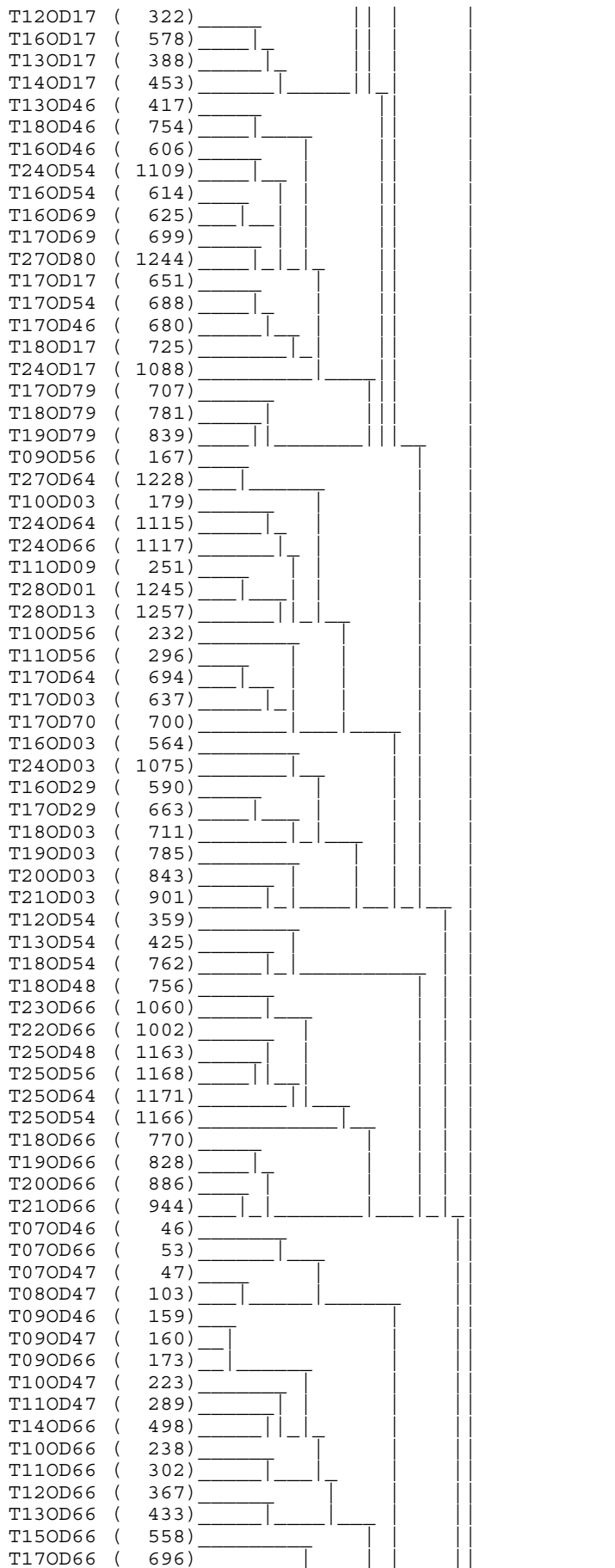


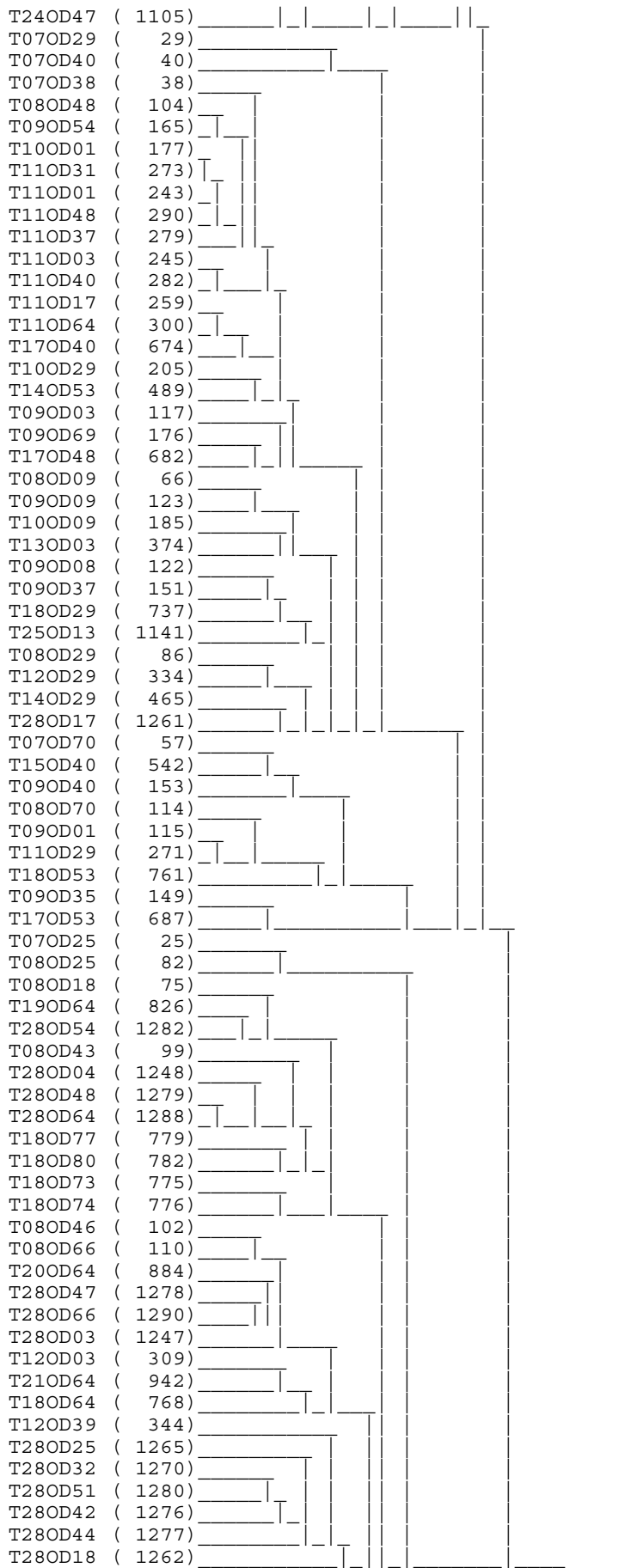


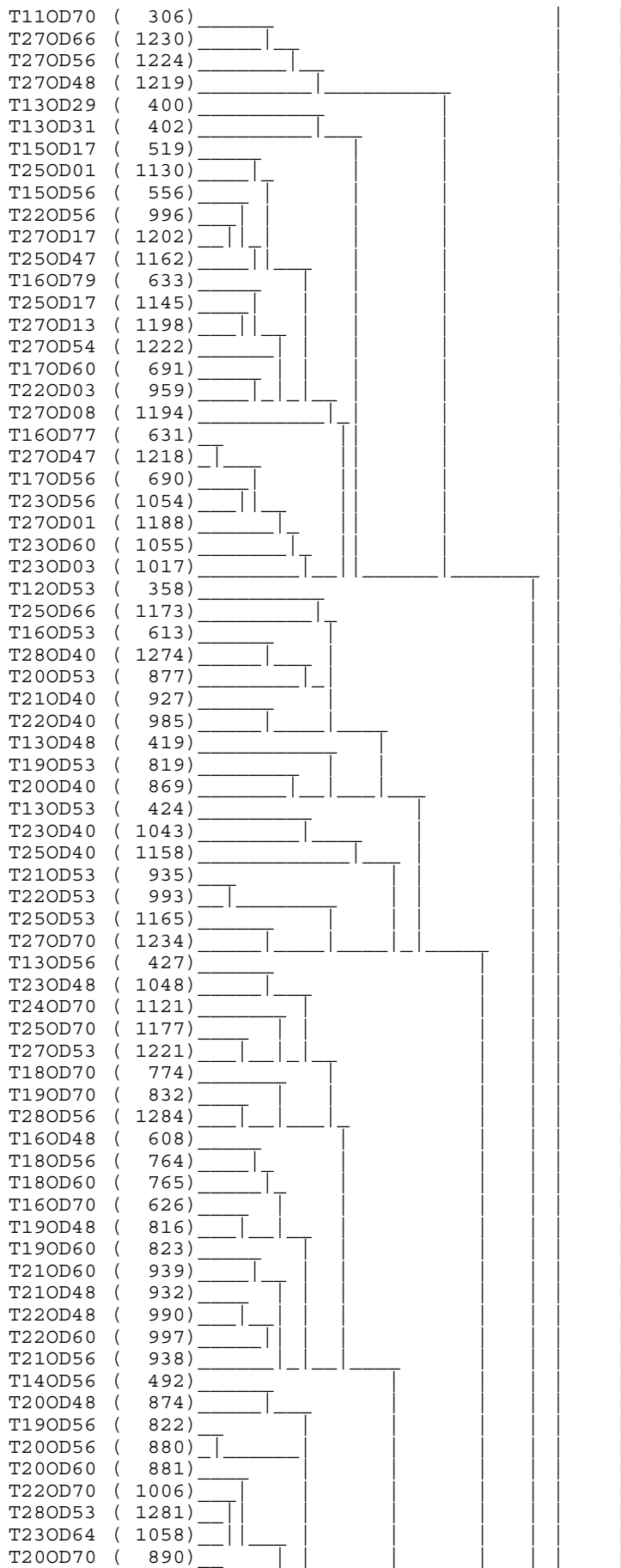
APPENDIX O DENDROGRAM OF THE OLYMPIC DAM COVER DATA



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T18OD40	(748)	
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T08OD31	(88)	
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T08OD40	(96)	
T09OD17	(131)	
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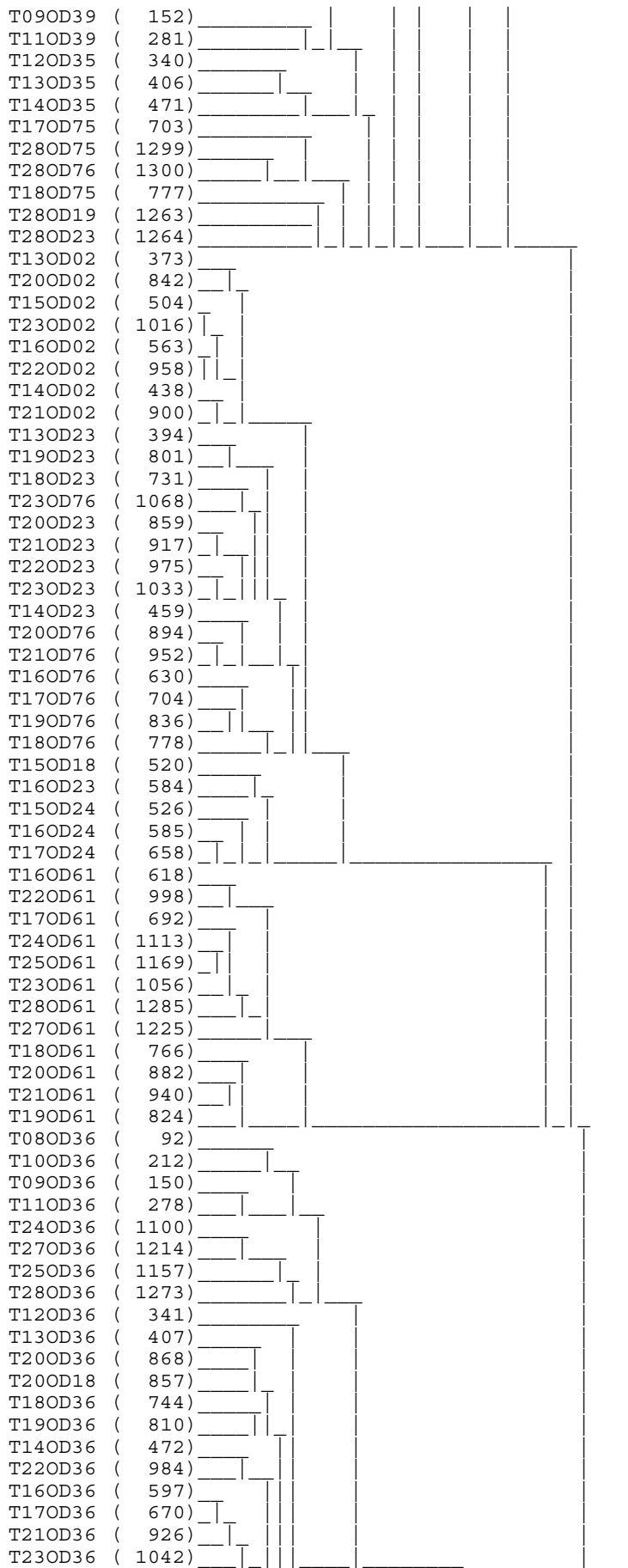




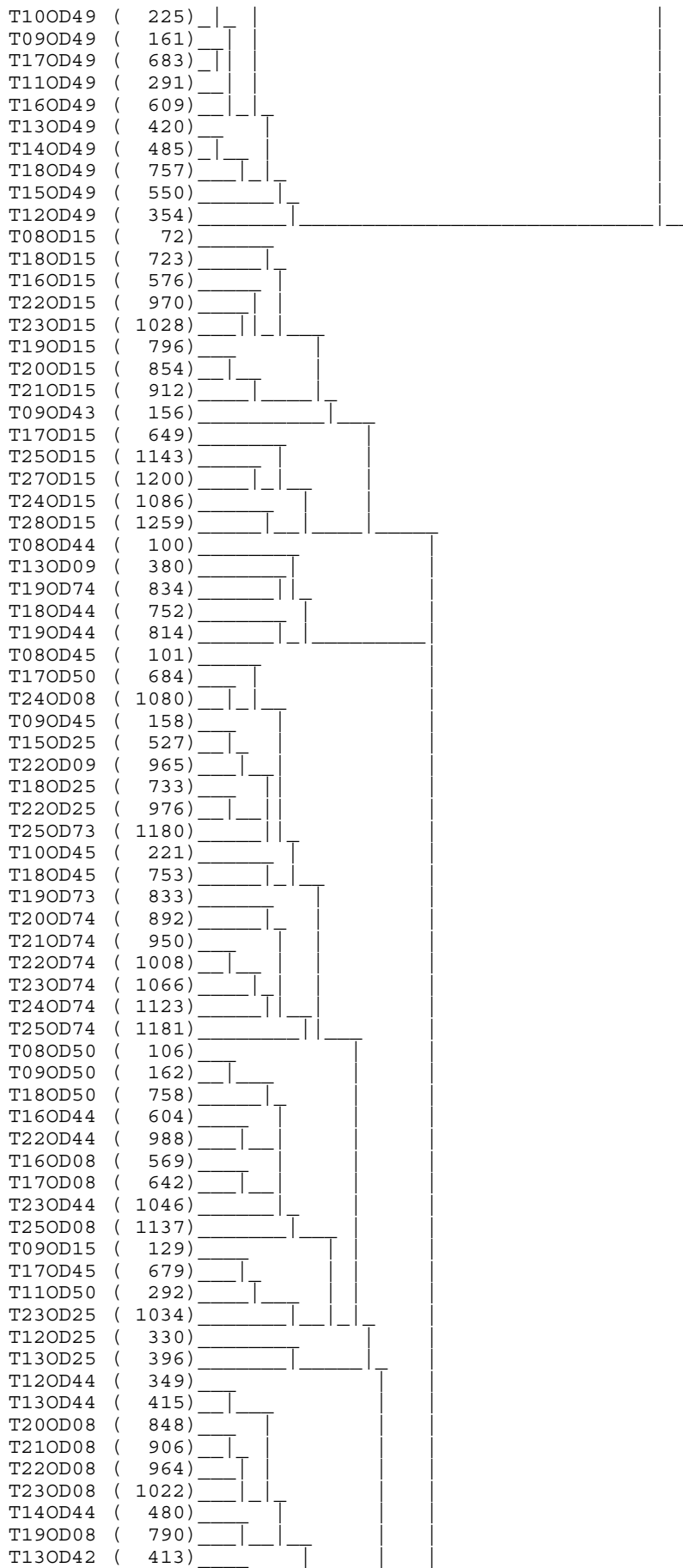
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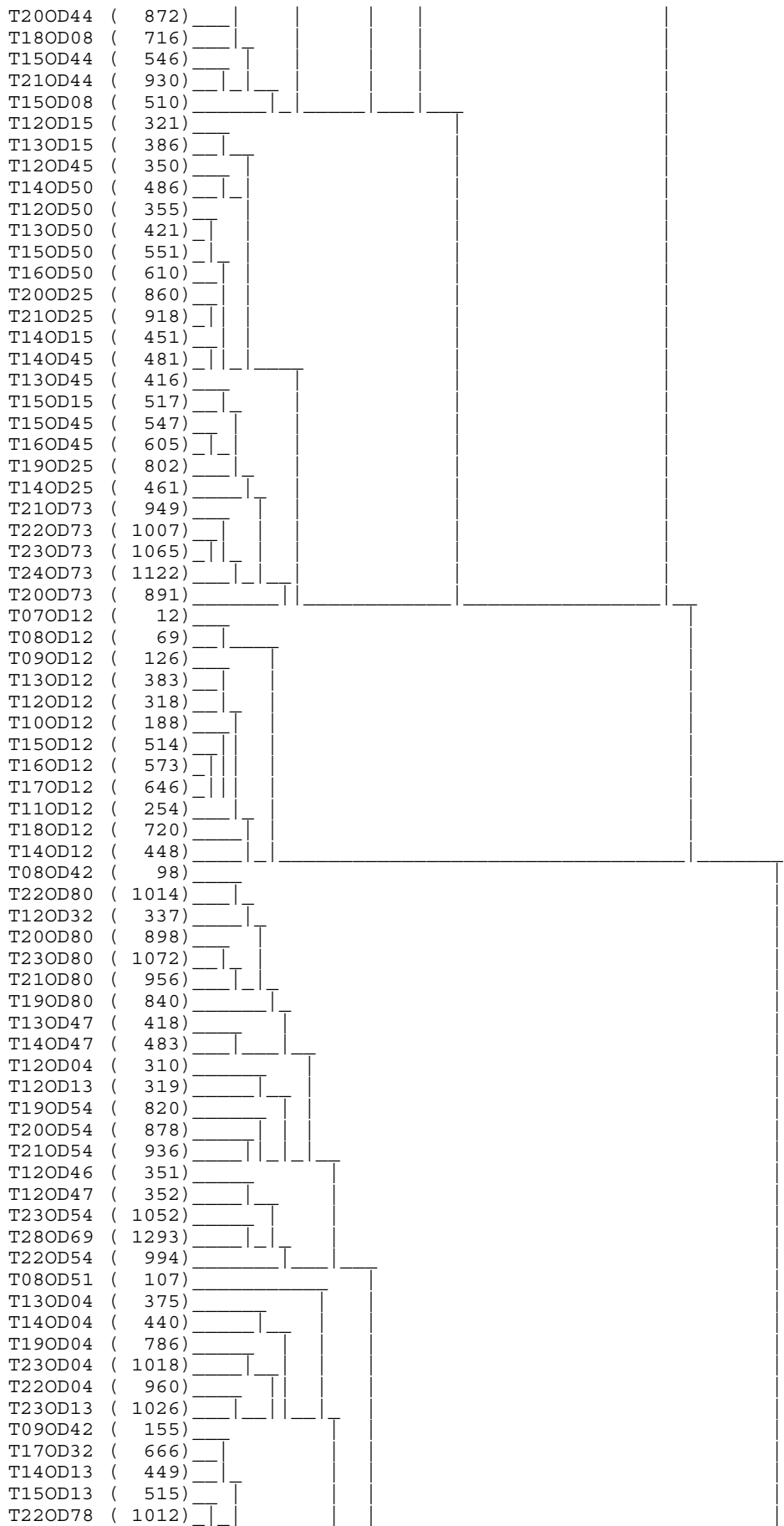
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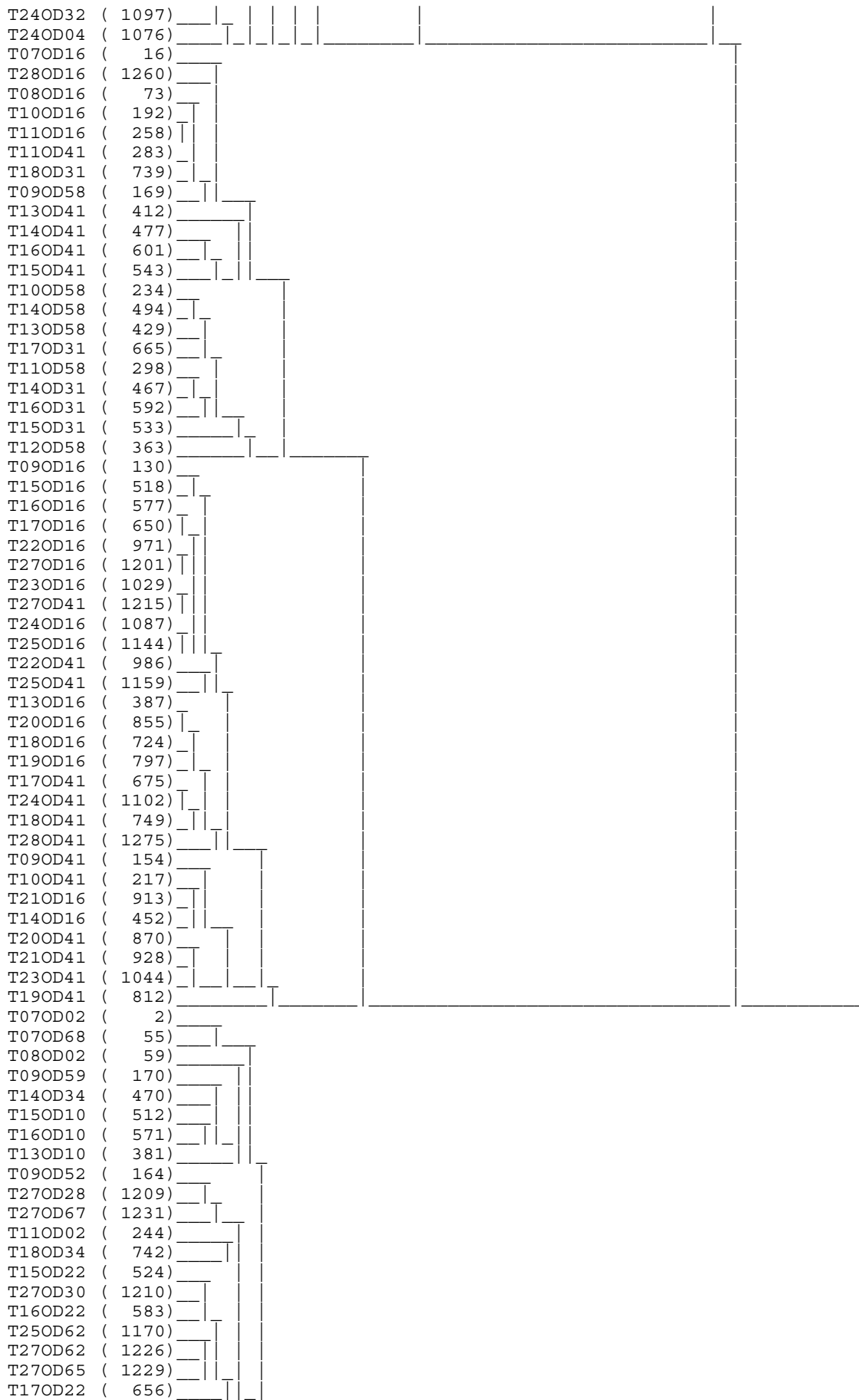
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T18OD43	(751)
T14OD18	(454)
T14OD43	(479)
T16OD18	(579)
T17OD18	(652)
T17OD43	(677)
T25OD18	(1146)
T16OD43	(603)
T12OD24	(329)
T13OD24	(395)
T14OD24	(460)
T18OD24	(732)
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T20OD11	(851)
T21OD11	(909)
T22OD11	(967)
T23OD11	(1025)
T14OD11	(447)
T15OD11	(513)
T16OD11	(572)
T17OD11	(645)
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T27OD11	(1197)
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T25OD33	(1155)
T27OD33	(1212)
T09OD33	(147)
T15OD33	(535)
T17OD33	(667)
T16OD33	(594)
T12OD33	(338)
T13OD33	(404)
T14OD33	(469)
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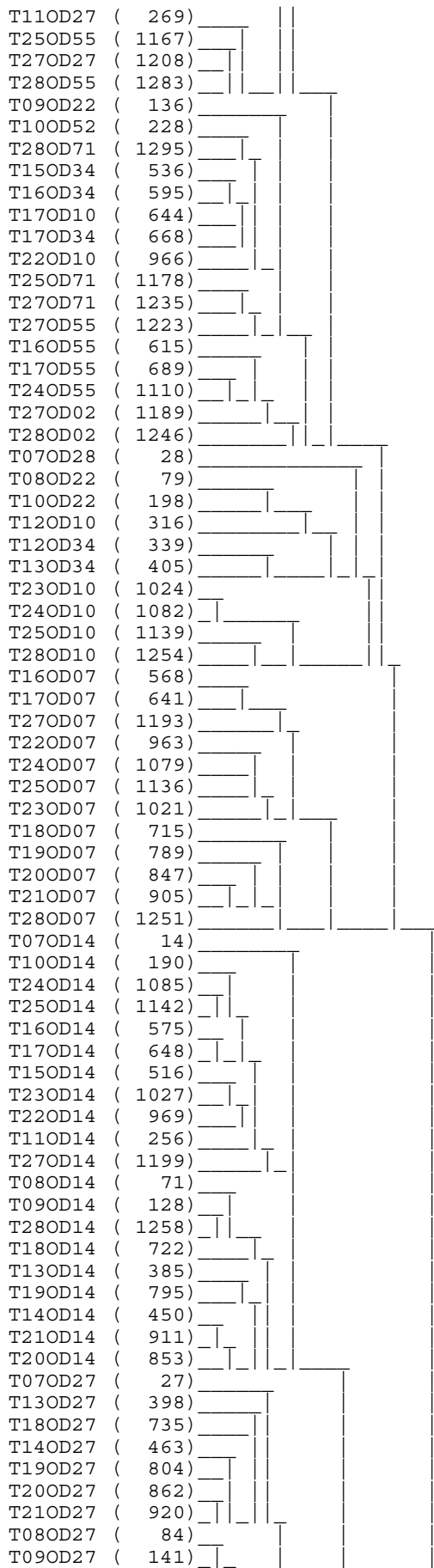




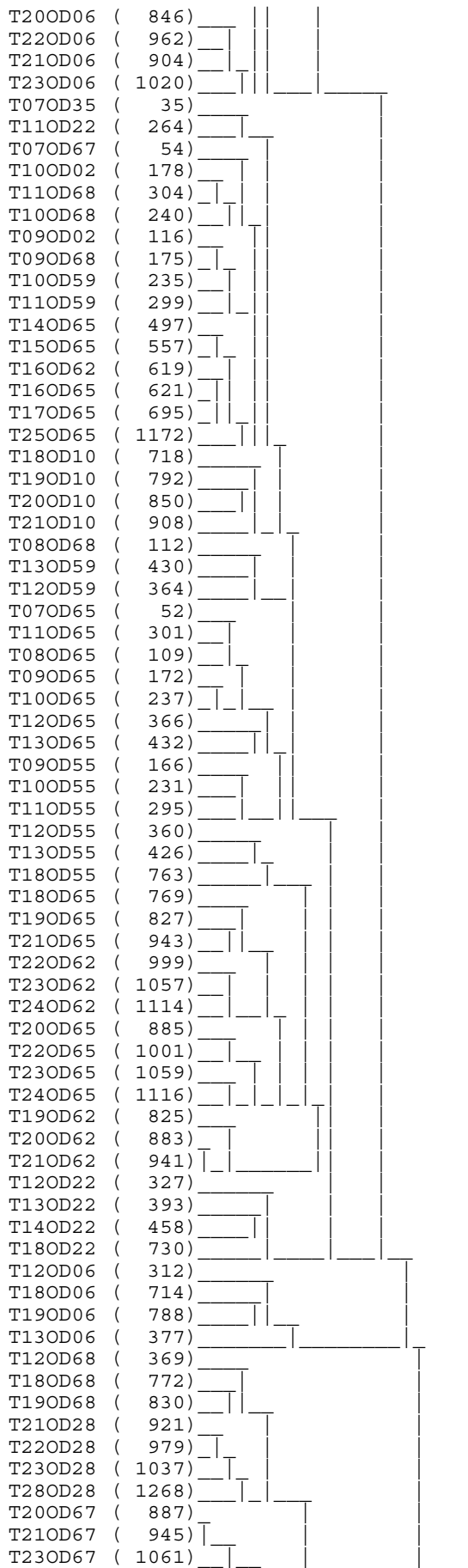
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T180D13	(721)
T180D47	(755)
T180D78	(780)
T210D78	(954)
T190D01	(783)
T200D01	(841)
T210D01	(899)
T220D42	(987)
T230D42	(1045)
T150D54	(554)
T180D69	(773)
T190D78	(838)
T280D80	(1304)
T200D78	(896)
T240D69	(1120)
T230D78	(1070)
T240D80	(1129)
T250D80	(1187)
T230D79	(1071)
T250D79	(1186)
T280D79	(1303)
T240D78	(1127)
T240D79	(1128)
T200D79	(897)
T210D79	(955)
T120D42	(347)
T150D32	(534)
T230D32	(1039)
T210D42	(929)
T140D32	(468)
T160D42	(602)
T210D13	(910)
T130D13	(384)
T200D13	(852)
T190D13	(794)
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T200D47	(873)
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T190D32	(807)
T210D04	(902)
T190D42	(813)
T150D04	(506)
T210D09	(907)
T220D51	(991)
T150D42	(544)
T200D32	(865)
T200D09	(849)
T210D47	(931)
T210D32	(923)
T220D32	(981)
T210D51	(933)
T190D69	(831)
T210D69	(947)
T200D69	(889)
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T180D51	(759)
T190D51	(817)
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T140D42	(478)
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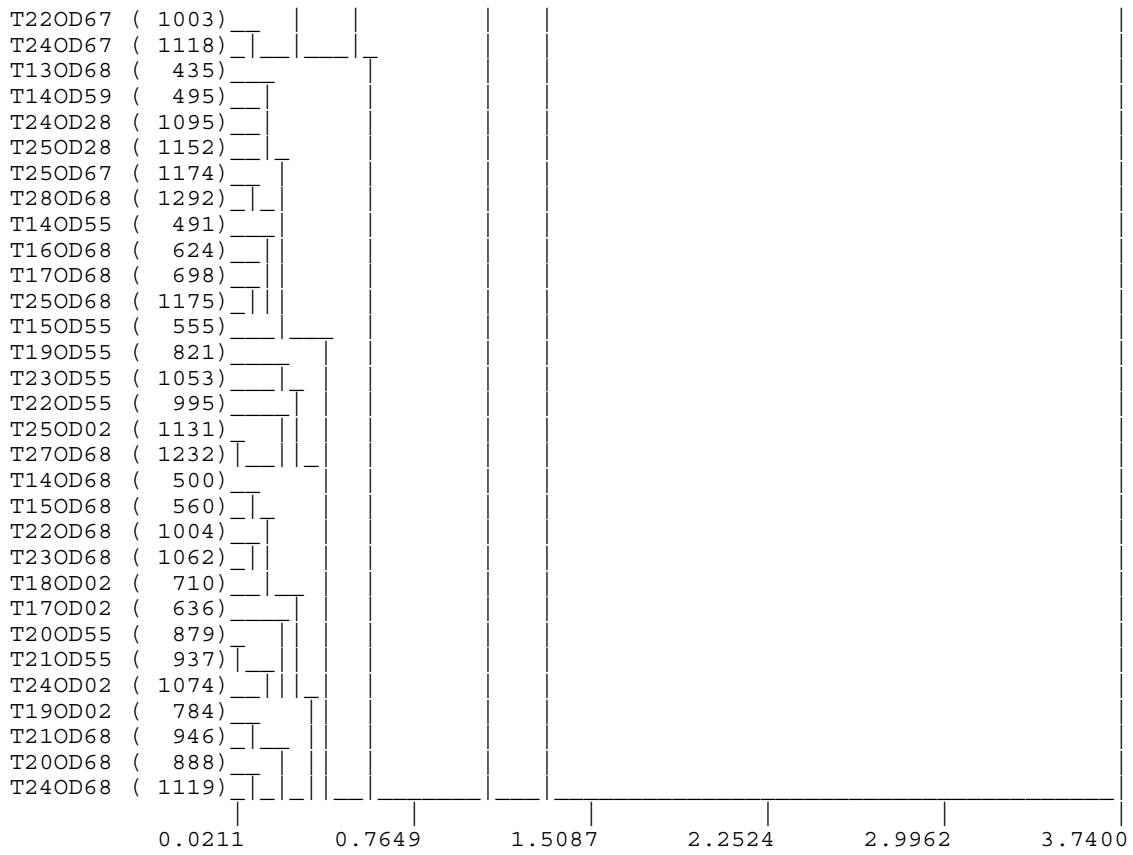
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T17OD13	(647)	_____
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T16OD01	(562)	_____
T15OD09	(511)	_____
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T15OD46	(548)	_____
T19OD17	(798)	_____
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T23OD17	(1030)	_____
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T27OD69	(1233)	_____
T25OD04	(1133)	_____
T12OD09	(315)	_____
T18OD09	(717)	_____
T18OD37	(745)	_____
T15OD47	(549)	_____
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T16OD09	(570)	_____
T24OD09	(1081)	_____
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T22OD79	(1013)	_____
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T14OD09	(445)	_____
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T23OD09	(1023)	_____
T18OD01	(709)	_____
T23OD51	(1049)	_____
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T280D27	(1267)				
T270D63	(1227)				
T100D57	(233)				
T130D57	(428)				
T140D57	(493)				
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T140D30	(466)				
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T180D67	(771)				
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T170D67	(697)				
T280D67	(1291)				
T090D67	(174)				
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T220D30	(980)				
T240D30	(1096)				
T250D30	(1153)				
T140D10	(446)				





APPENDIX P GROUP MEMBERSHIP AT OLYMPIC DAM SITES

GROUP:	1	53 MEMBR/S					
T070D01 :	1	T090D13 :	127	T130D64 :	431	T070D13 :	13
T090D32 :	146	T110D19 :	261	T110D46 :	288	T110D69 :	305
T080D08 :	65	T100D04 :	180	T100D46 :	222	T070D08 :	8
T100D15 :	191	T070D39 :	39	T110D45 :	287	T080D01 :	58
T110D44 :	286	T110D13 :	255	T140D64 :	496	T110D32 :	274
T110D08 :	250	T160D64 :	620	T080D32 :	89	T080D37 :	93
T070D03 :	3	T080D04 :	61	T070D22 :	22	T080D64 :	108
T110D54 :	294	T100D51 :	227	T140D54 :	490	T100D43 :	219
T070D50 :	49	T070D51 :	50	T100D54 :	230	T120D64 :	365
T120D41 :	346	T070D36 :	36	T070D04 :	4	T070D64 :	51
T110D04 :	246	T070D37 :	37	T070D09 :	9	T110D23 :	265
T070D42 :	42	T080D03 :	60	T070D21 :	21	T080D13 :	70
T110D43 :	285	T100D08 :	184	T100D32 :	208	T100D50 :	226
T090D04 :	118						
GROUP:	2	156 MEMBR/S					
T070D15 :	15	T070D32 :	32	T070D43 :	43	T070D44 :	44
T070D45 :	45	T070D18 :	18	T170D73 :	701	T170D74 :	702
T280D08 :	1252	T280D73 :	1297	T280D74 :	1298	T090D25 :	139
T170D25 :	659	T240D25 :	1092	T160D25 :	586	T270D25 :	1206
T110D15 :	257	T110D21 :	263	T110D25 :	267	T090D44 :	157
T240D44 :	1104	T240D51 :	1107	T250D25 :	1149	T250D42 :	1160
T270D42 :	1216	T270D51 :	1220	T250D44 :	1161	T250D51 :	1164
T270D44 :	1217	T190D77 :	837	T200D77 :	895	T220D77 :	1011
T210D77 :	953	T230D77 :	1069	T240D77 :	1126	T250D77 :	1184
T270D77 :	1241	T280D77 :	1301	T070D17 :	17	T080D17 :	74
T100D69 :	241	T120D69 :	370	T170D80 :	708	T120D40 :	345
T140D40 :	476	T130D40 :	411	T070D69 :	56	T080D69 :	113
T190D40 :	811	T100D13 :	189	T100D37 :	213	T170D77 :	705
T100D25 :	201	T100D44 :	220	T100D18 :	194	T110D18 :	260
T100D35 :	211	T110D35 :	277	T140D03 :	439	T180D40 :	748
T070D31 :	31	T080D31 :	88	T140D48 :	484	T080D40 :	96
T090D17 :	131	T100D48 :	224	T140D70 :	502	T100D70 :	242
T120D56 :	361	T240D48 :	1106	T230D53 :	1051	T240D53 :	1108
T100D31 :	207	T120D31 :	336	T100D40 :	216	T100D53 :	229
T240D60 :	1112	T120D48 :	353	T240D56 :	1111	T160D40 :	600
T240D40 :	1101	T160D56 :	616	T160D60 :	617	T160D66 :	622
T120D17 :	322	T160D17 :	578	T130D17 :	388	T140D17 :	453
T130D46 :	417	T180D46 :	754	T160D46 :	606	T240D54 :	1109
T160D54 :	614	T160D69 :	625	T170D69 :	699	T270D80 :	1244
T170D17 :	651	T170D54 :	688	T170D46 :	680	T180D17 :	725
T240D17 :	1088	T170D79 :	707	T180D79 :	781	T190D79 :	839
T090D56 :	167	T270D64 :	1228	T100D03 :	179	T240D64 :	1115
T240D66 :	1117	T110D09 :	251	T280D01 :	1245	T280D13 :	1257
T100D56 :	232	T110D56 :	296	T170D64 :	694	T170D03 :	637
T170D70 :	700	T160D03 :	564	T240D03 :	1075	T160D29 :	590
T170D29 :	663	T180D03 :	711	T190D03 :	785	T200D03 :	843
T210D03 :	901	T120D54 :	359	T130D54 :	425	T180D54 :	762
T180D48 :	756	T230D66 :	1060	T220D66 :	1002	T250D48 :	1163
T250D56 :	1168	T250D64 :	1171	T250D54 :	1166	T180D66 :	770
T190D66 :	828	T200D66 :	886	T210D66 :	944	T070D46 :	46
T070D66 :	53	T070D47 :	47	T080D47 :	103	T090D46 :	159
T090D47 :	160	T090D66 :	173	T100D47 :	223	T110D47 :	289
T140D66 :	498	T100D66 :	238	T110D66 :	302	T120D66 :	367
T130D66 :	433	T150D66 :	558	T170D66 :	696	T240D47 :	1105
GROUP:	3	41 MEMBR/S					
T070D29 :	29	T070D40 :	40	T070D38 :	38	T080D48 :	104
T090D54 :	165	T100D01 :	177	T110D31 :	273	T110D01 :	243
T110D48 :	290	T110D37 :	279	T110D03 :	245	T110D40 :	282
T110D17 :	259	T110D64 :	300	T170D40 :	674	T100D29 :	205
T140D53 :	489	T090D03 :	117	T090D69 :	176	T170D48 :	682
T080D09 :	66	T090D09 :	123	T100D09 :	185	T130D03 :	374
T090D08 :	122	T090D37 :	151	T180D29 :	737	T250D13 :	1141

T08OD29 :	86	T12OD29 :	334	T14OD29 :	465	T28OD17 :	1261
T07OD70 :	57	T15OD40 :	542	T09OD40 :	153	T08OD70 :	114
T09OD01 :	115	T11OD29 :	271	T18OD53 :	761	T09OD35 :	149
T17OD53 :	687						
GROUP :	4	29 MEMBR/S					
T07OD25 :	25	T08OD25 :	82	T08OD18 :	75	T19OD64 :	826
T28OD54 :	1282	T08OD43 :	99	T28OD04 :	1248	T28OD48 :	1279
T28OD64 :	1288	T18OD77 :	779	T18OD80 :	782	T18OD73 :	775
T18OD74 :	776	T08OD46 :	102	T08OD66 :	110	T20OD64 :	884
T28OD47 :	1278	T28OD66 :	1290	T28OD03 :	1247	T12OD03 :	309
T21OD64 :	942	T18OD64 :	768	T12OD39 :	344	T28OD25 :	1265
T28OD32 :	1270	T28OD51 :	1280	T28OD42 :	1276	T28OD44 :	1277
T28OD18 :	1262						
GROUP :	5	26 MEMBR/S					
T11OD70 :	306	T27OD66 :	1230	T27OD56 :	1224	T27OD48 :	1219
T13OD29 :	400	T13OD31 :	402	T15OD17 :	519	T25OD01 :	1130
T15OD56 :	556	T22OD56 :	996	T27OD17 :	1202	T25OD47 :	1162
T16OD79 :	633	T25OD17 :	1145	T27OD13 :	1198	T27OD54 :	1222
T17OD60 :	691	T22OD03 :	959	T27OD08 :	1194	T16OD77 :	631
T27OD47 :	1218	T17OD56 :	690	T23OD56 :	1054	T27OD01 :	1188
T23OD60 :	1055	T23OD03 :	1017				
GROUP :	6	17 MEMBR/S					
T12OD53 :	358	T25OD66 :	1173	T16OD53 :	613	T28OD40 :	1274
T20OD53 :	877	T21OD40 :	927	T22OD40 :	985	T13OD48 :	419
T19OD53 :	819	T20OD40 :	869	T13OD53 :	424	T23OD40 :	1043
T25OD40 :	1158	T21OD53 :	935	T22OD53 :	993	T25OD53 :	1165
T27OD70 :	1234						
GROUP :	7	32 MEMBR/S					
T13OD56 :	427	T23OD48 :	1048	T24OD70 :	1121	T25OD70 :	1177
T27OD53 :	1221	T18OD70 :	774	T19OD70 :	832	T28OD56 :	1284
T16OD48 :	608	T18OD56 :	764	T18OD60 :	765	T16OD70 :	626
T19OD48 :	816	T19OD60 :	823	T21OD60 :	939	T21OD48 :	932
T22OD48 :	990	T22OD60 :	997	T21OD56 :	938	T14OD56 :	492
T20OD48 :	874	T19OD56 :	822	T20OD56 :	880	T20OD60 :	881
T22OD70 :	1006	T28OD53 :	1281	T23OD64 :	1058	T20OD70 :	890
T23OD70 :	1064	T21OD70 :	948	T22OD64 :	1000	T28OD70 :	1294
GROUP :	8	52 MEMBR/S					
T07OD05 :	5	T16OD05 :	566	T08OD05 :	62	T09OD05 :	119
T10OD05 :	181	T24OD05 :	1077	T08OD38 :	94	T07OD07 :	7
T09OD07 :	121	T12OD05 :	311	T13OD05 :	376	T19OD05 :	787
T18OD05 :	713	T14OD05 :	441	T20OD05 :	845	T22OD05 :	961
T21OD05 :	903	T23OD05 :	1019	T28OD05 :	1249	T07OD24 :	24
T10OD24 :	200	T11OD24 :	266	T12OD08 :	314	T13OD08 :	379
T14OD08 :	444	T07OD41 :	41	T08OD41 :	97	T08OD24 :	81
T11OD05 :	247	T12OD70 :	371	T15OD29 :	531	T28OD33 :	1271
T09OD29 :	143	T09OD31 :	145	T25OD03 :	1132	T27OD03 :	1190
T15OD19 :	521	T15OD23 :	525	T15OD43 :	545	T15OD36 :	538
T10OD38 :	214	T11OD38 :	280	T17OD38 :	672	T15OD38 :	540
T17OD05 :	639	T25OD05 :	1134	T12OD38 :	343	T13OD38 :	409
T14OD38 :	474	T18OD38 :	746	T17OD35 :	669	T17OD39 :	673
GROUP :	9	38 MEMBR/S					
T07OD10 :	10	T08OD10 :	67	T09OD10 :	124	T11OD10 :	252
T27OD10 :	1196	T10OD10 :	186	T09OD18 :	132	T08OD07 :	64
T10OD07 :	183	T11OD07 :	249	T09OD24 :	138	T15OD07 :	509
T12OD07 :	313	T07OD23 :	23	T08OD28 :	85	T09OD28 :	142
T10OD28 :	204	T11OD28 :	270	T17OD28 :	662	T22OD52 :	992
T15OD52 :	553	T23OD52 :	1050	T16OD52 :	612	T17OD52 :	686
T12OD28 :	333	T13OD28 :	399	T14OD28 :	464	T19OD28 :	805
T20OD28 :	863	T14OD52 :	488	T15OD28 :	530	T19OD52 :	818

T200D52 :	876	T210D52 :	934	T120D52 :	357	T130D52 :	423
T180D28 :	736	T180D52 :	760				
GROUP :	10	93 MEMBR/S					
T070D19 :	19	T280D26 :	1266	T100D17 :	193	T100D19 :	195
T100D21 :	197	T080D19 :	76	T170D21 :	655	T130D19 :	390
T160D19 :	580	T130D21 :	392	T160D21 :	582	T170D20 :	654
T080D21 :	78	T120D19 :	324	T180D21 :	729	T120D21 :	326
T120D20 :	325	T130D20 :	391	T140D20 :	456	T160D20 :	581
T180D20 :	728	T180D19 :	727	T200D19 :	858	T220D19 :	974
T210D19 :	916	T230D19 :	1032	T190D19 :	800	T120D37 :	342
T130D37 :	408	T270D18 :	1203	T240D18 :	1089	T120D26 :	331
T130D26 :	397	T140D26 :	462	T150D26 :	528	T190D26 :	803
T200D26 :	861	T210D26 :	919	T180D26 :	734	T220D26 :	977
T230D26 :	1035	T240D26 :	1093	T270D26 :	1207	T250D26 :	1150
T140D19 :	455	T140D21 :	457	T150D21 :	523	T240D19 :	1090
T250D19 :	1147	T170D19 :	653	T160D26 :	587	T170D26 :	660
T270D73 :	1237	T270D74 :	1238	T150D20 :	522	T250D23 :	1148
T170D23 :	657	T240D23 :	1091	T240D76 :	1125	T250D76 :	1183
T090D19 :	133	T160D75 :	629	T150D05 :	507	T160D73 :	627
T160D74 :	628	T270D19 :	1204	T270D23 :	1205	T270D75 :	1239
T270D76 :	1240	T100D34 :	210	T110D34 :	276	T150D39 :	541
T160D39 :	599	T160D28 :	589	T180D39 :	747	T150D03 :	505
T150D35 :	537	T160D35 :	596	T090D64 :	171	T100D64 :	236
T280D72 :	1296	T250D72 :	1179	T270D72 :	1236	T270D35 :	1213
T180D35 :	743	T190D35 :	809	T200D35 :	867	T210D35 :	925
T220D35 :	983	T240D35 :	1099	T250D35 :	1156	T280D35 :	1272
T230D35 :	1041						
GROUP :	11	37 MEMBR/S					
T070D20 :	20	T100D20 :	196	T110D20 :	262	T100D23 :	199
T080D20 :	77	T090D20 :	134	T110D26 :	268	T070D26 :	26
T080D23 :	80	T090D23 :	137	T080D26 :	83	T090D26 :	140
T100D26 :	202	T190D75 :	835	T230D75 :	1067	T200D75 :	893
T220D75 :	1009	T210D75 :	951	T240D75 :	1124	T250D75 :	1182
T080D34 :	91	T090D34 :	148	T080D39 :	95	T100D39 :	215
T130D39 :	410	T140D39 :	475	T090D39 :	152	T110D39 :	281
T120D35 :	340	T130D35 :	406	T140D35 :	471	T170D75 :	703
T280D75 :	1299	T280D76 :	1300	T180D75 :	777	T280D19 :	1263
T280D23 :	1264						
GROUP :	12	28 MEMBR/S					
T130D02 :	373	T200D02 :	842	T150D02 :	504	T230D02 :	1016
T160D02 :	563	T220D02 :	958	T140D02 :	438	T210D02 :	900
T130D23 :	394	T190D23 :	801	T180D23 :	731	T230D76 :	1068
T200D23 :	859	T210D23 :	917	T220D23 :	975	T230D23 :	1033
T140D23 :	459	T200D76 :	894	T210D76 :	952	T160D76 :	630
T170D76 :	704	T190D76 :	836	T180D76 :	778	T150D18 :	520
T160D23 :	584	T150D24 :	526	T160D24 :	585	T170D24 :	658
GROUP :	13	12 MEMBR/S					
T160D61 :	618	T220D61 :	998	T170D61 :	692	T240D61 :	1113
T250D61 :	1169	T230D61 :	1056	T280D61 :	1285	T270D61 :	1225
T180D61 :	766	T200D61 :	882	T210D61 :	940	T190D61 :	824
GROUP :	14	47 MEMBR/S					
T080D36 :	92	T100D36 :	212	T090D36 :	150	T110D36 :	278
T240D36 :	1100	T270D36 :	1214	T250D36 :	1157	T280D36 :	1273
T120D36 :	341	T130D36 :	407	T200D36 :	868	T200D18 :	857
T180D36 :	744	T190D36 :	810	T140D36 :	472	T220D36 :	984
T160D36 :	597	T170D36 :	670	T210D36 :	926	T230D36 :	1042
T120D02 :	308	T150D69 :	561	T120D23 :	328	T220D76 :	1010
T120D18 :	323	T120D43 :	348	T130D18 :	389	T180D18 :	726
T190D18 :	799	T210D18 :	915	T220D18 :	973	T230D18 :	1031
T130D43 :	414	T180D43 :	751	T140D18 :	454	T140D43 :	479
T160D18 :	579	T170D18 :	652	T170D43 :	677	T250D18 :	1146

T16OD43 :	603	T12OD24 :	329	T13OD24 :	395	T14OD24 :	460
T18OD24 :	732	T13OD07 :	378	T14OD07 :	443		
GROUP :	15	42 MEMBR/S					
T07OD11 :	11	T08OD11 :	68	T09OD11 :	125	T10OD11 :	187
T18OD11 :	719	T19OD11 :	793	T11OD11 :	253	T28OD11 :	1255
T07OD33 :	33	T28OD12 :	1256	T12OD11 :	317	T13OD11 :	382
T20OD11 :	851	T21OD11 :	909	T22OD11 :	967	T23OD11 :	1025
T14OD11 :	447	T15OD11 :	513	T16OD11 :	572	T17OD11 :	645
T24OD11 :	1083	T25OD11 :	1140	T27OD11 :	1197	T08OD33 :	90
T23OD33 :	1040	T10OD33 :	209	T11OD33 :	275	T22OD33 :	982
T24OD33 :	1098	T25OD33 :	1155	T27OD33 :	1212	T09OD33 :	147
T15OD33 :	535	T17OD33 :	667	T16OD33 :	594	T12OD33 :	338
T13OD33 :	404	T14OD33 :	469	T18OD33 :	741	T19OD33 :	808
T20OD33 :	866	T21OD33 :	924				
GROUP :	16	12 MEMBR/S					
T07OD49 :	48	T08OD49 :	105	T10OD49 :	225	T09OD49 :	161
T17OD49 :	683	T11OD49 :	291	T16OD49 :	609	T13OD49 :	420
T14OD49 :	485	T18OD49 :	757	T15OD49 :	550	T12OD49 :	354
GROUP :	17	89 MEMBR/S					
T08OD15 :	72	T18OD15 :	723	T16OD15 :	576	T22OD15 :	970
T23OD15 :	1028	T19OD15 :	796	T20OD15 :	854	T21OD15 :	912
T09OD43 :	156	T17OD15 :	649	T25OD15 :	1143	T27OD15 :	1200
T24OD15 :	1086	T28OD15 :	1259	T08OD44 :	100	T13OD09 :	380
T19OD74 :	834	T18OD44 :	752	T19OD44 :	814	T08OD45 :	101
T17OD50 :	684	T24OD08 :	1080	T09OD45 :	158	T15OD25 :	527
T22OD09 :	965	T18OD25 :	733	T22OD25 :	976	T25OD73 :	1180
T10OD45 :	221	T18OD45 :	753	T19OD73 :	833	T20OD74 :	892
T21OD74 :	950	T22OD74 :	1008	T23OD74 :	1066	T24OD74 :	1123
T25OD74 :	1181	T08OD50 :	106	T09OD50 :	162	T18OD50 :	758
T16OD44 :	604	T22OD44 :	988	T16OD08 :	569	T17OD08 :	642
T23OD44 :	1046	T25OD08 :	1137	T09OD15 :	129	T17OD45 :	679
T11OD50 :	292	T23OD25 :	1034	T12OD25 :	330	T13OD25 :	396
T12OD44 :	349	T13OD44 :	415	T20OD08 :	848	T21OD08 :	906
T22OD08 :	964	T23OD08 :	1022	T14OD44 :	480	T19OD08 :	790
T13OD42 :	413	T20OD44 :	872	T18OD08 :	716	T15OD44 :	546
T21OD44 :	930	T15OD08 :	510	T12OD15 :	321	T13OD15 :	386
T12OD45 :	350	T14OD50 :	486	T12OD50 :	355	T13OD50 :	421
T15OD50 :	551	T16OD50 :	610	T20OD25 :	860	T21OD25 :	918
T14OD15 :	451	T14OD45 :	481	T13OD45 :	416	T15OD15 :	517
T15OD45 :	547	T16OD45 :	605	T19OD25 :	802	T14OD25 :	461
T21OD73 :	949	T22OD73 :	1007	T23OD73 :	1065	T24OD73 :	1122
T20OD73 :	891						
GROUP :	18	12 MEMBR/S					
T07OD12 :	12	T08OD12 :	69	T09OD12 :	126	T13OD12 :	383
T12OD12 :	318	T10OD12 :	188	T15OD12 :	514	T16OD12 :	573
T17OD12 :	646	T11OD12 :	254	T18OD12 :	720	T14OD12 :	448
GROUP :	19	175 MEMBR/S					
T08OD42 :	98	T22OD80 :	1014	T12OD32 :	337	T20OD80 :	898
T23OD80 :	1072	T21OD80 :	956	T19OD80 :	840	T13OD47 :	418
T14OD47 :	483	T12OD04 :	310	T12OD13 :	319	T19OD54 :	820
T20OD54 :	878	T21OD54 :	936	T12OD46 :	351	T12OD47 :	352
T23OD54 :	1052	T28OD69 :	1293	T22OD54 :	994	T08OD51 :	107
T13OD04 :	375	T14OD04 :	440	T19OD04 :	786	T23OD04 :	1018
T22OD04 :	960	T23OD13 :	1026	T09OD42 :	155	T17OD32 :	666
T14OD13 :	449	T15OD13 :	515	T22OD78 :	1012	T17OD51 :	685
T13OD32 :	403	T16OD32 :	593	T14OD46 :	482	T09OD51 :	163
T18OD13 :	721	T18OD47 :	755	T18OD78 :	780	T21OD78 :	954
T19OD01 :	783	T20OD01 :	841	T21OD01 :	899	T22OD42 :	987
T23OD42 :	1045	T15OD54 :	554	T18OD69 :	773	T19OD78 :	838
T28OD80 :	1304	T20OD78 :	896	T24OD69 :	1120	T23OD78 :	1070
T24OD80 :	1129	T25OD80 :	1187	T23OD79 :	1071	T25OD79 :	1186

T28OD79 :	1303	T24OD78 :	1127	T24OD79 :	1128	T20OD79 :	897
T21OD79 :	955	T12OD42 :	347	T15OD32 :	534	T23OD32 :	1039
T21OD42 :	929	T14OD32 :	468	T16OD42 :	602	T21OD13 :	910
T13OD13 :	384	T20OD13 :	852	T19OD13 :	794	T19OD47 :	815
T20OD47 :	873	T20OD04 :	844	T19OD32 :	807	T21OD04 :	902
T19OD42 :	813	T15OD04 :	506	T21OD09 :	907	T22OD51 :	991
T15OD42 :	544	T20OD32 :	865	T20OD09 :	849	T21OD47 :	931
T21OD32 :	923	T22OD32 :	981	T21OD51 :	933	T19OD69 :	831
T21OD69 :	947	T20OD69 :	889	T22OD69 :	1005	T23OD69 :	1063
T18OD51 :	759	T19OD51 :	817	T12OD51 :	356	T13OD51 :	422
T14OD51 :	487	T15OD51 :	552	T14OD42 :	478	T16OD51 :	611
T20OD51 :	875	T20OD42 :	871	T09OD21 :	135	T17OD44 :	678
T16OD78 :	632	T16OD80 :	634	T27OD04 :	1191	T27OD32 :	1211
T12OD01 :	307	T17OD42 :	676	T15OD01 :	503	T17OD01 :	635
T17OD13 :	647	T13OD01 :	372	T24OD01 :	1073	T16OD01 :	562
T15OD09 :	511	T24OD42 :	1103	T15OD46 :	548	T19OD17 :	798
T20OD17 :	856	T23OD17 :	1030	T22OD17 :	972	T21OD17 :	914
T13OD69 :	436	T25OD69 :	1176	T27OD69 :	1233	T25OD04 :	1133
T12OD09 :	315	T18OD09 :	717	T18OD37 :	745	T15OD47 :	549
T16OD47 :	607	T16OD09 :	570	T24OD09 :	1081	T17OD09 :	643
T25OD09 :	1138	T15OD37 :	539	T17OD37 :	671	T16OD37 :	598
T17OD47 :	681	T28OD09 :	1253	T27OD09 :	1195	T10OD42 :	218
T11OD42 :	284	T11OD51 :	293	T14OD69 :	501	T16OD13 :	574
T17OD78 :	706	T25OD78 :	1185	T28OD78 :	1302	T27OD78 :	1242
T14OD01 :	437	T22OD01 :	957	T23OD01 :	1015	T22OD13 :	968
T22OD47 :	989	T23OD47 :	1047	T25OD32 :	1154	T22OD79 :	1013
T27OD79 :	1243	T14OD09 :	445	T19OD09 :	791	T23OD09 :	1023
T18OD01 :	709	T23OD51 :	1049	T18OD42 :	750	T14OD37 :	473
T24OD13 :	1084	T16OD04 :	565	T18OD04 :	712	T17OD04 :	638
T18OD32 :	740	T24OD32 :	1097	T24OD04 :	1076		

GROUP: 20 49 MEMBR/S

T07OD16 :	16	T28OD16 :	1260	T08OD16 :	73	T10OD16 :	192
T11OD16 :	258	T11OD41 :	283	T18OD31 :	739	T09OD58 :	169
T13OD41 :	412	T14OD41 :	477	T16OD41 :	601	T15OD41 :	543
T10OD58 :	234	T14OD58 :	494	T13OD58 :	429	T17OD31 :	665
T11OD58 :	298	T14OD31 :	467	T16OD31 :	592	T15OD31 :	533
T12OD58 :	363	T09OD16 :	130	T15OD16 :	518	T16OD16 :	577
T17OD16 :	650	T22OD16 :	971	T27OD16 :	1201	T23OD16 :	1029
T27OD41 :	1215	T24OD16 :	1087	T25OD16 :	1144	T22OD41 :	986
T25OD41 :	1159	T13OD16 :	387	T20OD16 :	855	T18OD16 :	724
T19OD16 :	797	T17OD41 :	675	T24OD41 :	1102	T18OD41 :	749
T28OD41 :	1275	T09OD41 :	154	T10OD41 :	217	T21OD16 :	913
T14OD16 :	452	T20OD41 :	870	T21OD41 :	928	T23OD41 :	1044
T19OD41 :	812						

GROUP: 21 264 MEMBR/S

T07OD02 :	2	T07OD68 :	55	T08OD02 :	59	T09OD59 :	170
T14OD34 :	470	T15OD10 :	512	T16OD10 :	571	T13OD10 :	381
T09OD52 :	164	T27OD28 :	1209	T27OD67 :	1231	T11OD02 :	244
T18OD34 :	742	T15OD22 :	524	T27OD30 :	1210	T16OD22 :	583
T25OD62 :	1170	T27OD62 :	1226	T27OD65 :	1229	T17OD22 :	656
T11OD27 :	269	T25OD55 :	1167	T27OD27 :	1208	T28OD55 :	1283
T09OD22 :	136	T10OD52 :	228	T28OD71 :	1295	T15OD34 :	536
T16OD34 :	595	T17OD10 :	644	T17OD34 :	668	T22OD10 :	966
T25OD71 :	1178	T27OD71 :	1235	T27OD55 :	1223	T16OD55 :	615
T17OD55 :	689	T24OD55 :	1110	T27OD02 :	1189	T28OD02 :	1246
T07OD28 :	28	T08OD22 :	79	T10OD22 :	198	T12OD10 :	316
T12OD34 :	339	T13OD34 :	405	T23OD10 :	1024	T24OD10 :	1082
T25OD10 :	1139	T28OD10 :	1254	T16OD07 :	568	T17OD07 :	641
T27OD07 :	1193	T22OD07 :	963	T24OD07 :	1079	T25OD07 :	1136
T23OD07 :	1021	T18OD07 :	715	T19OD07 :	789	T20OD07 :	847
T21OD07 :	905	T28OD07 :	1251	T07OD14 :	14	T10OD14 :	190
T24OD14 :	1085	T25OD14 :	1142	T16OD14 :	575	T17OD14 :	648
T15OD14 :	516	T23OD14 :	1027	T22OD14 :	969	T11OD14 :	256
T27OD14 :	1199	T08OD14 :	71	T09OD14 :	128	T28OD14 :	1258
T18OD14 :	722	T13OD14 :	385	T19OD14 :	795	T14OD14 :	450
T21OD14 :	911	T20OD14 :	853	T07OD27 :	27	T13OD27 :	398
T18OD27 :	735	T14OD27 :	463	T19OD27 :	804	T20OD27 :	862

T210D27 :	920	T080D27 :	84	T090D27 :	141	T100D27 :	203
T110D57 :	297	T160D27 :	588	T250D27 :	1151	T170D27 :	661
T150D57 :	529	T220D27 :	978	T230D27 :	1036	T240D27 :	1094
T090D57 :	168	T280D27 :	1267	T270D63 :	1227	T100D57 :	233
T130D57 :	428	T140D57 :	493	T120D14 :	320	T120D27 :	332
T120D57 :	362	T070D06 :	6	T090D06 :	120	T100D06 :	182
T110D06 :	248	T140D06 :	442	T080D06 :	63	T070D30 :	30
T080D30 :	87	T090D30 :	144	T100D30 :	206	T110D30 :	272
T280D06 :	1250	T280D63 :	1287	T120D30 :	335	T130D30 :	401
T140D30 :	466	T190D30 :	806	T120D67 :	368	T180D67 :	771
T190D67 :	829	T180D30 :	738	T180D62 :	767	T070D34 :	34
T100D67 :	239	T280D65 :	1289	T280D30 :	1269	T150D06 :	508
T160D06 :	567	T240D06 :	1078	T150D30 :	532	T160D30 :	591
T170D30 :	664	T230D30 :	1038	T200D30 :	864	T210D30 :	922
T080D67 :	111	T130D67 :	434	T140D67 :	499	T150D67 :	559
T160D67 :	623	T170D67 :	697	T280D67 :	1291	T090D67 :	174
T110D67 :	303	T170D06 :	640	T270D06 :	1192	T250D06 :	1135
T170D62 :	693	T280D62 :	1286	T220D30 :	980	T240D30 :	1096
T250D30 :	1153	T140D10 :	446	T200D06 :	846	T220D06 :	962
T210D06 :	904	T230D06 :	1020	T070D35 :	35	T110D22 :	264
T070D67 :	54	T100D02 :	178	T110D68 :	304	T100D68 :	240
T090D02 :	116	T090D68 :	175	T100D59 :	235	T110D59 :	299
T140D65 :	497	T150D65 :	557	T160D62 :	619	T160D65 :	621
T170D65 :	695	T250D65 :	1172	T180D10 :	718	T190D10 :	792
T200D10 :	850	T210D10 :	908	T080D68 :	112	T130D59 :	430
T120D59 :	364	T070D65 :	52	T110D65 :	301	T080D65 :	109
T090D65 :	172	T100D65 :	237	T120D65 :	366	T130D65 :	432
T090D55 :	166	T100D55 :	231	T110D55 :	295	T120D55 :	360
T130D55 :	426	T180D55 :	763	T180D65 :	769	T190D65 :	827
T210D65 :	943	T220D62 :	999	T230D62 :	1057	T240D62 :	1114
T200D65 :	885	T220D65 :	1001	T230D65 :	1059	T240D65 :	1116
T190D62 :	825	T200D62 :	883	T210D62 :	941	T120D22 :	327
T130D22 :	393	T140D22 :	458	T180D22 :	730	T120D06 :	312
T180D06 :	714	T190D06 :	788	T130D06 :	377	T120D68 :	369
T180D68 :	772	T190D68 :	830	T210D28 :	921	T220D28 :	979
T230D28 :	1037	T280D28 :	1268	T200D67 :	887	T210D67 :	945
T230D67 :	1061	T220D67 :	1003	T240D67 :	1118	T130D68 :	435
T140D59 :	495	T240D28 :	1095	T250D28 :	1152	T250D67 :	1174
T280D68 :	1292	T140D55 :	491	T160D68 :	624	T170D68 :	698
T250D68 :	1175	T150D55 :	555	T190D55 :	821	T230D55 :	1053
T220D55 :	995	T250D02 :	1131	T270D68 :	1232	T140D68 :	500
T150D68 :	560	T220D68 :	1004	T230D68 :	1062	T180D02 :	710
T170D02 :	636	T200D55 :	879	T210D55 :	937	T240D02 :	1074
T190D02 :	784	T210D68 :	946	T200D68 :	888	T240D68 :	1119

APPENDIX Q

SIGNIFICANT SPECIES AT OLYMPIC DAM SITES

List of species that are significant ($p < 0.05$) to the composition of groups identified from a classification of the enclosure sites cover data. Species names in bold font indicate that the mean cover for the species in this group is $>5\%$, generic names in bold font indicate that the mean plus one standard deviation for the species is $>5\%$ and underlined names indicate that the highest mean cover value for the species was recorded in the group.

Group 1	Abutilon otocarpum	Maireana erioclada	
	Acacia aneura	Minuria leptophylla	
	Acacia ligulata	Nicotiana velutina	
	Acacia papyrocarpa	Othonna gregorii	
	Amaranthus grandiflorus	Paractaenum novae-hollandiae	
	Aristida contorta	Paractaenum refractum	
	Aristida holathera	<u>Polycalymma stuartii</u>	
	Atriplex spongiosa	Portulaca oleracea	
	Atriplex velutinella	Ptilotus obovatus	
	Atriplex vesicaria	Ptilotus polystachyus	
	Boerhavia dominii	Rhodanthe moschata	
	Brassica tournefortii	Salsola kali	
	<u>Calandrinia remota</u>	Santalum lanceolatum	
	Callitris glaucophylla	Schismus barbatus	
	Citrullus colocynthis	Sclerolaena decurrens	
	Dactyloctenium radulans	Sclerolaena diacantha	
	<u>Dissocarpus paradoxus</u>	Sclerolaena lanicuspis	
	Dodonaea viscosa	Sclerolaena obliquicuspis	
	Enneapogon avenaceus	Sclerolaena ventricosa	
	Enneapogon cylindricus	Sida ammophila	
	Eriochiton sclerolaenoides	Sida fibulifera	
	Erodium cygnorum	Stipa nitida	
	Euphorbia drummondii	Tetragonia eremaea	
	Euphorbia wheeleri	Thysanotus exiliflorus	
	Gnephosis tenuissima	Trachymene glaucifolia	
	Goodenia cycloptera	Tragus australianus	
	Goodenia lunata	Tribulus sp.	
	Gunniopsis quadrifida	Trichodesma zeylanicum	
	<u>Harmsiodoxa blennodioides</u>	Triraphis mollis	
	Lepidium phlebopetalum	<u>Zygophyllum ammophilum</u>	
	Maireana astrotricha		
	Group 2	Abutilon otocarpum	Harmsiodoxa blennodioides
		Acacia aneura	Hibiscus krichauffianus
Acacia ligulata		Lepidium phlebopetalum	
Amaranthus grandiflorus		<u>Maireana erioclada</u>	
Aristida contorta		Nicotiana velutina	
Aristida holathera		Othonna gregorii	
Atriplex velutinella		Paractaenum novae-hollandiae	
Atriplex vesicaria		Paractaenum refractum	
Boerhavia dominii		Pimelea simplex	
Brassica tournefortii		Plantago drummondii	
Calandrinia disperma		Polycalymma stuartii	
Calandrinia remota		Portulaca oleracea	
Chenopodium desertorum		Ptilotus polystachyus	
Chenopodium pumilio		Rhodanthe moschata	
Chthonocephalus pseudevax		Salsola kali	
Citrullus colocynthis		Schismus barbatus	
Crotalaria eremaea		Sclerolaena cuneata	
Dactyloctenium radulans		Sclerolaena diacantha	
Dodonaea viscosa		Sclerolaena obliquicuspis	
Enchylaena tomentosa		Sida ammophila	
Enneapogon avenaceus		Sida fibulifera	
Enneapogon cylindricus		<u>Solanum ellipticum</u>	
Eragrostis dielsii		Stipa nitida	
Eragrostis laniflora		Tetragonia eremaea	
Eragrostis xerophila		Thysanotus exiliflorus	
<u>Erodium cygnorum</u>		Trachymene glaucifolia	

	<p>Euphorbia drummondii Euphorbia tannensis Euphorbia wheeleri Gnephosis arachnoidea <u>Gnephosis tenuissima</u> Goodenia cycloptera Goodenia lunata</p>	<p>Tragus australianus Tribulus sp. Trichodesma zeylanicum Triraphis mollis Vittadinia eremaea Zygophyllum ammophilum</p>
Group 3	<p>Abutilon otocarpum Acacia ligulata Amaranthus grandiflorus Aristida contorta Aristida holathera Boerhavia dominii Brassica tournefortii Calandrinia remota Crotalaria eremaea Dissocarpus paradoxus Enneapogon cylindricus Eragrostis laniflora Erodium cygnorum Euphorbia drummondii Euphorbia wheeleri Gnephosis tenuissima Goodenia cycloptera Gunnioopsis quadrifida Nicotiana velutina</p>	<p>Paractaenum novae-hollandiae Paractaenum refractum Polycalymma stuartii Portulaca oleracea Ptilotus polystachyus <u>Ptilotus sessilifolius</u> Rhodanthe moschata Salsola kali Sclerolaena diacantha Sclerolaena divaricata Sida ammophila Stipa nitida Tephrosia sphaerospora Trachymene glaucifolia Tragus australianus Trichodesma zeylanicum Triraphis mollis Zygophyllum ammophilum</p>
Group 4	<p><u>Abutilon otocarpum</u> Acacia aneura Amaranthus grandiflorus Aristida contorta Aristida holathera Atriplex spongiosa Atriplex velutinella Atriplex vesicaria <u>Boerhavia dominii</u> Brachyscome lineariloba Brassica tournefortii <u>Calandrinia disperma</u> Calandrinia remota Callitris glaucophylla Chenopodium desertorum Chenopodium pumilio Citrullus colocynthis Crassula colorata Dactyloctenium radulans Dissocarpus paradoxus Enchylaena tomentosa Enneapogon avenaceus Enneapogon cylindricus Eragrostis dielsii Eragrostis laniflora Erodium cygnorum Euphorbia drummondii Euphorbia tannensis <u>Euphorbia wheeleri</u> Gnephosis tenuissima</p>	<p>Goodenia cycloptera <u>Gunnioopsis quadrifida</u> Harmsiodoxa blennodioides Hibiscus krichauffianus Lepidium phlebopetalum Maireana erioclada Nicotiana velutina Paractaenum novae-hollandiae Paractaenum refractum Plantago drummondii Polycalymma stuartii Portulaca oleracea Ptilotus polystachyus Rhodanthe moschata <u>Salsola kali</u> Schismus barbatus Sclerolaena diacantha Sclerolaena divaricata Sclerolaena obliquicuspis <u>Sida ammophila</u> Solanum ellipticum Stipa nitida Tetragonia eremaea Thysanotus exiliflorus Trachymene glaucifolia Tragus australianus Tribulus sp. Trichodesma zeylanicum Triraphis mollis Zygophyllum ammophilum</p>
Group 5	<p>Abutilon otocarpum Acacia ligulata Aristida holathera Brassica tournefortii Citrullus colocynthis</p>	<p>Polycalymma stuartii Ptilotus sessilifolius Salsola kali Sclerolaena diacantha Sclerolaena obliquicuspis</p>

	<p>Crotalaria eremaea Enneapogon cylindricus Euphorbia wheeleri Hibiscus krichauffianus Paractaenum refractum</p>	<p>Sida ammophila Trachymene glaucifolia Trichodesma zeylanicum Triraphis mollis</p>
Group 6	<p>Acacia ligulata Crotalaria eremaea Enchylaena tomentosa Euphorbia wheeleri Goodenia cycloptera Paractaenum refractum</p>	<p>Polycalymma stuartii Salsola kali Sida ammophila Trachymene glaucifolia Trichodesma zeylanicum</p>
Group 7	<p>Acacia ligulata Aristida holathera Brassica tournefortii <u>Crotalaria eremaea</u> Euphorbia wheeleri Goodenia cycloptera Paractaenum refractum</p>	<p>Polycalymma stuartii Salsola kali Sida ammophila Trachymene glaucifolia <u>Trichodesma zeylanicum</u> Zygophyllum ammophilum</p>
Group 8	<p>Acacia ligulata Acacia papyrocarpa Aristida contorta Aristida holathera Atriplex spongiosa Atriplex velutinella Atriplex vesicaria Boerhavia dominii Brassica tournefortii Calandrinia disperma Calandrinia remota Callitris glaucophylla Citrullus colocynthis Dactyloctenium radulans Dissocarpus paradoxus Dodonaea viscosa Enchylaena tomentosa Enneapogon avenaceus Enneapogon cylindricus Eragrostis dielsii Eragrostis xerophila Eriochiton sclerolaenoides Erodium cygnorum Euphorbia drummondii Euphorbia wheeleri Goodenia cycloptera Goodenia lunata Isoetopsis graminifolia Lotus cruentus Maireana astrotricha</p>	<p>Maireana erioclada Maireana integra Minuria leptophylla Paractaenum novae-hollandiae Paractaenum refractum Paspalidium constrictum Plantago drummondii Portulaca oleracea Ptilotus obovatus Ptilotus polystachyus Ptilotus sessilifolius Rhodanthe pygmaea Salsola kali Schismus barbatus Sclerolaena decurrens <u>Sclerolaena diacantha</u> <u>Sclerolaena divaricata</u> Sclerolaena obliquicuspis Sclerolaena ventricosa Sida ammophila Sida fibulifera Sporobolus actinocladus Stipa nitida Tetragonia eremaea Tragus australianus Tribulus sp. Trichodesma zeylanicum Triraphis mollis Vittadinia eremaea <u>Zygophyllum prismatothecum</u></p>
Group 9	<p>Abutilon otocarpum Acacia papyrocarpa Aristida contorta Aristida holathera Atriplex spongiosa <u>Atriplex</u> vesicaria Boerhavia dominii Brachyscome lineariloba Brassica tournefortii Calandrinia disperma Calandrinia remota Calocephalus platycephalus</p>	<p>Maireana integra Minuria leptophylla <u>Osteocarpum acropterum</u> Othonna gregorii Paractaenum novae-hollandiae Paractaenum refractum <u>Plantago drummondii</u> Ptilotus obovatus Pycnosorus pleiocephalus Rhodanthe pygmaea <u>Rhodanthe stricta</u> Salsola kali</p>

	<p><u>Chenopodium desertorum</u> <u>Dactyloctenium radulans</u> Dissocarpus paradoxus Enneapogon avenaceus Enneapogon cylindricus <u>Eragrostis dielsii</u> Eriochiton sclerolaenoides Erodium cygnorum Euphorbia drummondii Frankenia serpyllifolia Gnephosis arachnoidea Gnephosis tenuissima Goodenia cycloptera Gunnioptis quadrifida Isoetopsis graminifolia Lepidium phlebopetalum Lotus cruentus Maireana astrotricha Maireana erioclada</p>	<p>Schismus barbatus Sclerolaena brachyptera Sclerolaena diacantha Sclerolaena divaricata <u>Sclerolaena lanicuspis</u> Sclerolaena obliquicuspis Sclerolaena parallelicuspis <u>Sclerolaena ventricosa</u> Sida fibulifera Sonchus sp. Sporobolus actinocladus Stipa nitida Tetragonia eremaea Tragus australianus Tribulus sp. Trichodesma zeylanicum Triraphis mollis Vittadinia eremaea Zygophyllum ammophilum</p>
Group 10	<p>Abutilon otocarpum Acacia ligulata Acacia papyrocarpa Amaranthus grandiflorus Aristida contorta Aristida holathera Atriplex spongiosa Atriplex velutinella Atriplex vesicaria Boerhavia dominii Brachyscome lineariloba Brassica tournefortii Calandrinia disperma Calandrinia remota Callitris glaucophylla Chenopodium desertorum Chenopodium pumilio Citrullus colocynthis Dactyloctenium radulans Dissocarpus paradoxus Enchylaena tomentosa Enneapogon avenaceus Enneapogon cylindricus Eragrostis dielsii Eragrostis laniflora Eriochiton sclerolaenoides Erodium cygnorum Euphorbia drummondii Euphorbia tannensis Euphorbia wheeleri Gnephosis arachnoidea Gnephosis tenuissima <u>Goodenia lunata</u> Goodenia cycloptera Harmsiodoxa blennodioides</p>	<p><u>Isoetopsis graminifolia</u> Lepidium phlebopetalum Maireana astrotricha Maireana erioclada Maireana integra Paractaenum refractum Plantago drummondii Polycalymma stuartii Portulaca oleracea Ptilotus obovatus Ptilotus polystachyus Ptilotus sessilifolius Pycnosorus pleiocephalus Rhodanthe pygmaea Rhodanthe stricta Salsola kali Schismus barbatus Sclerolaena decurrens Sclerolaena diacantha Sclerolaena divaricata Sclerolaena lanicuspis Sclerolaena obliquicuspis Sclerolaena ventricosa Sida ammophila Sida fibulifera Stipa nitida Swainsona formosa Tetragonia eremaea Thysanotus exiliflorus Trachymene glaucifolia Tragus australianus Tribulus sp. Triraphis mollis Vittadinia eremaea Zygophyllum ammophilum</p>
Group 11	<p>Abutilon otocarpum Acacia ligulata <u>Acacia papyrocarpa</u> Aristida contorta Aristida holathera Atriplex spongiosa Atriplex velutinella Atriplex vesicaria</p>	<p>Minuria leptophylla Paractaenum refractum Polycalymma stuartii Portulaca oleracea Ptilotus obovatus Pycnosorus pleiocephalus Rhodanthe moschata Rhodanthe pygmaea</p>

	<p>Boerhavia dominii Brassica tournefortii Calandrinia disperma Calandrinia remota Chenopodium desertorum Citrullus colocynthis Dactyloctenium radulans Dissocarpus paradoxus Enneapogon avenaceus Enneapogon cylindricus Eragrostis dielsii Eriochiton sclerolaenoides Erodium cygnorum Euphorbia drummondii Euphorbia tannensis Goodenia lunata Hibiscus krichauffianus Lepidium phlebopetalum Lotus cruentus Maireana astrotricha Maireana erioclada Maireana integra</p>	<p>Salsola kali Schismus barbatus Sclerolaena cuneata Sclerolaena decurrens Sclerolaena diacantha Sclerolaena divaricata Sclerolaena lanicuspis Sclerolaena obliquicuspis Sclerolaena parallelicuspis Sclerolaena ventricosa Sida ammophila Sida fibulifera Sonchus sp. <u>Stipa nitida</u> Tephrosia sphaerospora Tetragonia eremaea Thysanotus exiliflorus Tragus australianus Triraphis mollis Vittadinia eremaea Zygophyllum ammophilum</p>
Group 12	<p>Acacia ligulata Aristida contorta Aristida holathera <u>Atriplex vesicaria</u> Brachyscome lineariloba Brassica tournefortii Dactyloctenium radulans Dissocarpus paradoxus Enneapogon avenaceus Enneapogon cylindricus Eragrostis dielsii Eriochiton sclerolaenoides Erodium cygnorum Euphorbia drummondii <u>Euphorbia tannensis</u> Euphorbia wheeleri Lepidium phlebopetalum Maireana astrotricha Maireana erioclada Maireana integra</p>	<p>Minuria leptophylla Paspalidium constrictum <u>Ptilotus obovatus</u> Pycnosorus pleiocephalus Salsola kali Schismus barbatus <u>Sclerolaena cuneata</u> Sclerolaena divaricata Sclerolaena lanicuspis Sclerolaena obliquicuspis Sclerolaena parallelicuspis Sida ammophila Sida fibulifera Sonchus sp. Stipa nitida <u>Swainsona formosa</u> Tetragonia eremaea <u>Thysanotus exiliflorus</u> Triraphis mollis Vittadinia eremaea</p>
Group 13	<p>Dissocarpus paradoxus Enneapogon avenaceus Enneapogon cylindricus Eriochiton sclerolaenoides Erodium cygnorum Euphorbia drummondii Gnephosis arachnoidea</p>	<p>Maireana astrotricha Rhodanthe pygmaea Rhodanthe stricta Salsola kali Sclerolaena obliquicuspis Stipa nitida</p>
Group 14	<p>Abutilon otocarpum Acacia ligulata Amaranthus grandiflorus Aristida contorta Aristida holathera <u>Atriplex spongiosa</u> Atriplex vesicaria Boerhavia dominii Brachyscome lineariloba Brassica tournefortii Calandrinia disperma Calandrinia remota</p>	<p>Isoetopsis graminifolia Lepidium phlebopetalum Maireana astrotricha Maireana erioclada Maireana integra Minuria leptophylla Othonna gregorii Paractaenum novae-hollandiae Paractaenum refractum <u>Paspalidium constrictum</u> Plantago drummondii Polycalymma stuartii</p>

	<p><u>Callitris glaucophylla</u> <u>Calocephalus platycephalus</u> Chenopodium desertorum Chenopodium pumilio Chthonocephalus pseudevax Citrullus colocynthis Dactyloctenium radulans Dissocarpus paradoxus Enchylaena tomentosa Enneapogon avenaceus Enneapogon cylindricus Eragrostis dielsii <u>Eragrostis laniflora</u> Eragrostis xerophila Eriochiton sclerolaenoides Erodium cygnorum <u>Euphorbia drummondii</u> Euphorbia tannensis Euphorbia wheeleri Gnephosis tenuissima Goodenia cycloptera</p>	<p>Portulaca oleracea Ptilotus obovatus Ptilotus polystachyus Pycnosorus pleiocephalus <u>Rhodanthe moschata</u> <u>Rhodanthe pygmaea</u> Salsola kali Schismus barbatus Sclerolaena obliquicuspis Sclerolaena parallelicuspis Sida ammophila Sida fibulifera Sonchus sp. Stipa nitida <u>Tetragonia eremaea</u> Thysanotus exiliflorus Tragus australianus Tribulus sp. Triraphis mollis Vittadinia eremaea Zygophyllum ammophilum</p>
Group 15	<p><u>Angianthus brachypappus</u> Aristida contorta <u>Atriplex spongiosa</u> Atriplex vesicaria <u>Brachyscome lineariloba</u> Calocephalus platycephalus Dactyloctenium radulans Dissocarpus paradoxus Enneapogon avenaceus Eragrostis dielsii Eriochiton sclerolaenoides Erodium cygnorum Euphorbia drummondii <u>Frankenia serpyllifolia</u> <u>Gnephosis arachnoidea</u> Gnephosis tenuissima Goodenia cycloptera Goodenia lunata <u>Lepidium phlebopetalum</u> <u>Lotus cruentus</u> Maireana astrotricha <u>Maireana ciliata</u> Maireana integra Minuria leptophylla Osteocarpum acropterum</p>	<p>Othonna gregorii Phyllanthus lacunarius <u>Pimelea simplex</u> Plantago drummondii Portulaca oleracea Rhodanthe moschata Rhodanthe pygmaea Rhodanthe stricta Salsola kali Schismus barbatus <u>Sclerolaena brachyptera</u> Sclerolaena decurrens Sclerolaena diacantha Sclerolaena divaricata Sclerolaena lanicuspis Sclerolaena obliquicuspis Sclerolaena parallelicuspis Sclerolaena ventricosa Sida fibulifera <u>Sporobolus actinocladius</u> Tetragonia eremaea Tragus australianus Vittadinia eremaea Zygophyllum ammophilum</p>
Group 16	<p>Abutilon otocarpum <u>Acacia ligulata</u> Amaranthus grandiflorus Atriplex velutinella Aristida holathera Brassica tournefortii Euphorbia wheeleri Goodenia cycloptera</p>	<p>Harmsiodoxa blennodioides Maireana erioclada Paractaenum refractum Polycalymma stuartii Salsola kali Trachymene glaucifolia Trichodesma zeylanicum Zygophyllum ammophilum</p>
Group 17	<p>Abutilon otocarpum <u>Acacia aneura</u> Acacia ligulata Amaranthus grandiflorus <u>Aristida contorta</u> Aristida holathera Atriplex spongiosa</p>	<p>Gunniopsis quadrifida Hibiscus krichauffianus Lepidium phlebopetalum Lotus cruentus Minuria leptophylla Othonna gregorii Paractaenum novae-hollandiae</p>

Atriplex velutinella
 Atriplex vesicaria
 Boerhavia dominii
 Brachyscome lineariloba
 Brassica tournefortii
 Calandrinia disperma
 Calandrinia remota
 Chenopodium desertorum
Chenopodium pumilio
Chthonocephalus pseudevax
 Citrullus colocynthis
Crassula colorata
 Dactyloctenium radulans
 Dissocarpus paradoxus
 Enchylaena tomentosa
 Enneapogon avenaceus
 Enneapogon cylindricus
 Eragrostis dielsii
 Erodium cygnorum
 Euphorbia drummondii
 Euphorbia tannensis
 Euphorbia wheeleri
 Gnephosis tenuissima
 Goodenia lunata

Paractaenum refractum
 Pimelea simplex
 Plantago drummondii
 Polycalymma stuartii
Portulaca oleracea
Ptilotus polystachyus
 Rhodanthe moschata
 Rhodanthe pygmaea
 Salsola kali
 Schismus barbatus
 Sclerolaena decurrens
 Sclerolaena diacantha
 Sclerolaena obliquicuspis
 Senecio lautus
 Sida ammophila
 Sida fibulifera
 Stipa nitida
 Tetragonia eremaea
 Thysanotus exiliflorus
 Trachymene glaucifolia
Tragus australianus
 Triraphis mollis
 Zygophyllum ammophilum

Group 18

Acacia ligulata
Amaranthus grandiflorus
Atriplex velutinella
 Brassica tournefortii
 Calandrinia disperma
 Calandrinia remota
 Crotalaria eremaea
 Enneapogon cylindricus
 Eragrostis dielsii
 Euphorbia wheeleri
 Goodenia cycloptera
Nicotiana velutina
Othonna gregorii
Paractaenum novae-hollandiae

Paractaenum refractum
Phyllanthus fuernrohrrii
Phyllanthus lacunarius
 Polycalymma stuartii
 Rhodanthe moschata
Senecio lautus
 Sida ammophila
Sonchus sp.
Tephrosia sphaerospora
 Tetragonia eremaea
 Tragus australianus
 Tribulus sp.
Zygophyllum ammophilum
Zygochloa paradoxa

Group 19

Abutilon otocarpum
 Acacia ligulata
 Amaranthus grandiflorus
 Aristida contorta
Aristida holathera
 Atriplex velutinella
 Atriplex vesicaria
 Boerhavia dominii
 Brassica tournefortii
 Calandrinia disperma
 Calandrinia remota
 Callitris glaucophylla
 Chenopodium desertorum
 Chenopodium pumilio
Citrullus colocynthis
 Crotalaria eremaea
 Dactyloctenium radulans
 Dissocarpus paradoxus
 Dodonaea viscosa
 Enchylaena tomentosa
 Enneapogon avenaceus
 Enneapogon cylindricus
 Eragrostis dielsii
 Eragrostis laniflora

Goodenia cycloptera
 Harmsiodoxa blennodioides
 Hibiscus krichauffianus
 Maireana erioclada
 Nicotiana velutina
 Othonna gregorii
 Paractaenum novae-hollandiae
 Paractaenum refractum
 Plantago drummondii
 Polycalymma stuartii
 Portulaca oleracea
 Ptilotus polystachyus
 Rhodanthe moschata
 Salsola kali
 Schismus barbatus
 Sida ammophila
 Sida fibulifera
 Solanum ellipticum
 Sonchus sp.
 Stipa nitida
 Tetragonia eremaea
 Thysanotus exiliflorus
Trachymene glaucifolia
 Tragus australianus

	Erodium cygnorum	Tribulus sp.
	Euphorbia drummondii	Trichodesma zeylanicum
	Euphorbia wheeleri	Triraphis mollis
	Gnephosis tenuissima	Zygophyllum ammophilum
Group 20	Abutilon otocarpum	Nicotiana velutina
	Acacia ligulata	Othonna gregorii
	Aristida holathera	Paractaenum novae-hollandiae
	Atriplex velutinella	<u>Paractaenum refractum</u>
	Brassica tournefortii	Polycalymma stuartii
	Calandrinia disperma	Rhodanthe moschata
	Calandrinia remota	Salsola kali
	Crotalaria eremaea	<u>Santalum lanceolatum</u>
	Dodonaea viscosa	Schismus barbatus
	Enchylaena tomentosa	Sida ammophila
	Erodium cygnorum	Stipa nitida
	Euphorbia drummondii	Tetragonia eremaea
	Euphorbia wheeleri	Trachymene glaucifolia
	Goodenia cycloptera	Trichodesma zeylanicum
	Hibiscus krichauffianus	Triraphis mollis
	Maireana erioclada	Zygophyllum ammophilum
Group 21	Abutilon otocarpum	<u>Minuria cunninghamii</u>
	Acacia papyrocarpa	<u>Minuria leptophylla</u>
	Amaranthus grandiflorus	Osteocarpum acropterum
	Aristida contorta	Othonna gregorii
	Aristida holathera	Paractaenum refractum
	Atriplex spongiosa	Plantago drummondii
	<u>Atriplex vesicaria</u>	Polycalymma stuartii
	Boerhavia dominii	Portulaca oleracea
	Brachyscome lineariloba	Ptilotus obovatus
	Brassica tournefortii	Ptilotus sessilifolius
	Calandrinia disperma	Pycnosorus pleiocephalus
	Calandrinia remota	Rhodanthe moschata
	Calocephalus platycephalus	Rhodanthe pygmaea
	Chenopodium desertorum	Rhodanthe stricta
	Citrullus colocynthis	Salsola kali
	Crassula colorata	Schismus barbatus
	Dactyloctenium radulus	Sclerolaena brachyptera
	<u>Dissocarpus biflorus</u>	Sclerolaena decurrens
	Dissocarpus paradoxus	Sclerolaena diacantha
	Enneapogon avenaceus	Sclerolaena divaricata
	Enneapogon cylindricus	Sclerolaena lanicuspis
	Eragrostis dielsii	Sclerolaena obliquicuspis
	Eragrostis laniflora	Sclerolaena parallelicuspis
	<u>Eragrostis xerophila</u>	Sclerolaena ventricosa
	Eriochiton sclerolaenoides	Senecio lautus
	Erodium cygnorum	Sida ammophila
	Euphorbia drummondii	Sida fibulifera
	Euphorbia tannensis	Sonchus sp.
	Euphorbia wheeleri	Sporobolus actinocladus
	Frankenia serpyllifolia	Swainsona formosa
	<u>Gnephosis arachnoidea</u>	Tephrosia sphaerospora
	Gnephosis tenuissima	Tetragonia eremaea
	Goodenia lunata	Thysanotus exiliflorus
	Gunniopsis quadrifida	Tragus australianus
	Isoetopsis graminifolia	Tribulus sp.
	Lepidium phlebopetalum	Trichodesma zeylanicum
	Lotus cruentus	Triraphis mollis
	Maireana astrotricha	<u>Vittadinia eremaea</u>
	Maireana ciliata	Zygophyllum ammophilum
	Maireana erioclada	Zygophyllum prismatothecum
	Maireana integra	

APPENDIX R SUGGESTED REASONS FOR SHIFTS BETWEEN GROUPS

Comments apply to the group as a whole when there are more than three shifts, or to the actual event(s) leading up to the change in the case of one to three shifts. When the shift is to a new cluster, the number in the second column is in bold font. See text for more information on species composition of groups.

From Group	To Group	No. of Cases	Comments
1	2	5	Major reductions in cover, mainly of <i>Brassica tournefortii</i> , and slight increases in species richness. Generally a shift to a better condition that was recorded most frequently in Autumn.
1	3	5	Major reduction in cover of <i>Brassica tournefortii</i> , but no corresponding increase in other species. Often with a decrease in species richness. Generally a shift to a worse condition that was recorded only in Spring.
1	8	1	An increase in cover and species richness following heavy rainfall. A large reduction in cover of <i>Brassica tournefortii</i> and small increases in grasses and <i>Sclerolaena diacantha</i> shifted this site into a group with generally lower median cover and species richness. This shift was recorded only in Autumn 1989 and the site then remained in Group 8.
1	10	3	Large increase in cover and species richness in one case and a decrease in cover in the other. A small reduction in <i>Brassica tournefortii</i> and an increase in native grasses and forbs, particularly <i>Goodenia lunata</i> , and <i>Atriplex vesicaria</i> . A shift to a better condition that was then maintained.
1	11	1	An increase in cover and species richness, with a decrease in <i>Brassica tournefortii</i> and an increase in cover of <i>Acacia papyrocarpa</i> and <i>Sclerolaena</i> spp. This shift was to a better condition and was maintained for several years.
1	14	3	Large increase in cover and species richness. Major reductions in <i>Brassica tournefortii</i> , with increases in native grasses, especially <i>Enneapogon cylindricus</i> . A shift to a better condition in sites with <i>Callitris glaucophylla</i> that was recorded only during Autumn.
1	17	4	Large increases in cover and species richness. Major reductions in <i>Brassica tournefortii</i> , which was replaced by native grasses, particularly <i>Aristida contorta</i> . A shift to a better condition in dune-base sites that was recorded most frequently during Autumn.
1	19	9	Similar cover but increased species richness. Major reductions in <i>Brassica tournefortii</i> , which was replaced by native grasses, particularly <i>Aristida holathera</i> . Generally a shift to a better condition at dune sites with few trees or shrubs. It was recorded most frequently during Autumn.
1	20	1	Increased cover but lower species richness. A large increase in cover of <i>Dodonaea viscosa</i> and a lesser increase in <i>Enchylaena tomentosa</i> , with a decrease in cover of ephemeral species, shifted this group into a new cluster, where it remained, with one exception, until the end of the monitoring.
1	21	1	Decreased cover but increased species richness. A major reduction of <i>Brassica tournefortii</i> and an almost doubling of cover of <i>Atriplex vesicaria</i> shifted this site into the group with the majority of the swale sites where it remained for the rest of the monitoring.
2	1	6	Decreased cover and species richness. <i>Brassica tournefortii</i> increased and replaced native species. Generally a shift to a worse condition.
2	3	10	Large reductions in both cover and species richness on dune sites. Generally a shift to a worse condition. Recorded most frequently during Spring.

From Group	To Group	No. of Cases	Comments
2	4	13	Large increases in cover, particularly of <i>Salsola kali</i> , and a small increase in species richness. Generally a shift to a slightly better condition that was recorded only in Autumn.
2	5	11	Large decreases in both cover and species richness. Generally a shift to a worse condition.
2	6	6	Large decreases in both cover and species richness. Generally a shift to a worse condition and most frequently recorded in Spring.
2	7	4	Large decreases in both cover and species richness. Generally a shift to a worse condition.
2	8	2	Large decreases in cover and species richness. A shift to a worse condition, but both sites had recovered to be at or better than their former condition within a year. This shift was recorded only during Spring.
2	10	3	Increases in both cover and species richness, with more grasses and a few perennial species. One shift was influenced by a large cover of <i>Goodenia lunata</i> . Generally a shift to a better condition.
2	11	1	Increased cover and species richness. A small decrease in cover of <i>Brassica tournefortii</i> and larger increases in the cover of grasses.
2	14	1	Increased cover and species richness. A large increase in cover of <i>Enneapogon cylindricus</i> was responsible for the shift to a different group that was maintained for six years apart from one minor fluctuation.
2	17	6	Large increases in cover, mainly of the grasses <i>Aristida contorta</i> and <i>A. holathera</i> , and a slight increase in species richness. Generally a shift to a better condition that was recorded only in Autumn.
2	19	10	Large increases in cover, especially of <i>Aristida holathera</i> , with little change in species richness. Generally a shift to a better condition.
3	1	3	Major increases in cover, almost entirely of <i>Brassica tournefortii</i> and smaller ones in species richness. Generally a shift to a better condition that was recorded only during Autumn. This shift did not occur after 1989 when <i>Brassica tournefortii</i> became less prominent (see text).
3	2	15	Doubling of cover and species richness. This represents a shift to a better condition and was recorded much more frequently in Autumn.
3	4	1	Increased cover, particularly of <i>Salsola kali</i> , and species richness. A shift to a slightly better condition that was not maintained.
3	5	2	Slightly lower cover and species richness, but with a small increase in <i>Aristida holathera</i> at one site.
3	6	2	Similar cover and species richness, but with a decrease in <i>Brassica tournefortii</i> and an increase in <i>Paractaenum refractum</i> .
3	8	3	Decreased cover and species richness. Cover loss was most consistent in <i>Brassica tournefortii</i> , while there was an increase in grasses at one site. This shift was recorded only during Spring.
3	10	1	Increased cover, especially of the grasses <i>Aristida holathera</i> and <i>Enneapogon cylindricus</i> , and species richness. A shift to a better condition.
3	19	1	Increased cover, particularly of the grass <i>Aristida holathera</i> , and species richness. A shift to a better condition.
4	2	4	Decreased cover, particularly of <i>Salsola kali</i> , and species richness. Generally a shift to a worse condition that was recorded only in Spring.

From Group	To Group	No. of Cases	Comments
4	3	1	Decreased cover, particularly of <i>Salsola kali</i> , and species richness. A shift to a worse condition.
4	7	1	Decreased cover and species richness. A shift to a worse condition.
4	9	1	Large decrease in cover, mainly of <i>Salsola kali</i> , with a small decrease in species richness. Less dune species but an increase in swale species.
4	11	1	Decreased cover, especially of <i>Brassica tournefortii</i> , <i>Salsola kali</i> and <i>Sclerolaena</i> spp., and species richness. A shift towards a condition with more swale species.
4	17	3	Similar cover and species richness, but with less <i>Salsola kali</i> and more grasses, especially <i>Erneapogon cylindricus</i> . There was an increase in the cover of <i>Acacia aneura</i> at one site, and of <i>Ptilotus polystachyus</i> at two sites. This shift was recorded only in spring.
4	19	1	Increased cover, especially of <i>Brassica tournefortii</i> , and species richness. There was a small decrease in cover of <i>Aristida holathera</i> , but an increase in ephemeral species. This shift was maintained for more than five years.
5	2	10	Increased cover and species richness. This is a shift to a better condition.
5	3	2	Increased cover and species richness. This represents a shift to a group with generally more <i>Aristida holathera</i> .
5	4	4	Large increases in cover, especially of <i>Salsola kali</i> , and species richness. This is a shift to a better condition that was recorded only in Spring.
5	8	1	Similar very low cover and species richness. The shift was caused by a change in dominance amongst the species.
5	20	1	Large increase in cover, mainly of <i>Dodonaea viscosa</i> , with a smaller increase in species richness. A shift towards a better condition.
6	2	3	Increased cover and species richness, mainly of forbs. A shift to a better condition.
6	3	2	In one case there was an increase in cover and species richness, but in the other there was a decrease. Cover of <i>Brassica tournefortii</i> increased in both cases. This is generally a shift towards a better condition.
6	5	1	Decreased cover and species richness in this case. This is a shift to a community with more <i>Aristida holathera</i> and generally increased cover and species richness.
6	7	2	Increased cover and similar species richness. A shift to a group with generally more <i>Paractaenum refractum</i> and <i>Trichodesma zeylanicum</i> .
7	2	3	Similar cover and species richness in these cases, although generally this shift would be expected to indicate increased cover and species richness. Generally a shift towards a better condition caused in these cases by increases in <i>Acacia ligulata</i> , <i>Salsola kali</i> and <i>Brassica tournefortii</i> and decreases in <i>Trichodesma zeylanicum</i> , <i>Aristida holathera</i> and <i>Paractaenum refractum</i> .
7	3	1	Decreased cover and species richness. A shift to a worse condition caused by reductions in cover of <i>Aristida holathera</i> and ephemeral herbs.
7	5	3	Small decreases in cover and species richness. A shift to a community with greater cover of <i>Aristida holathera</i> .

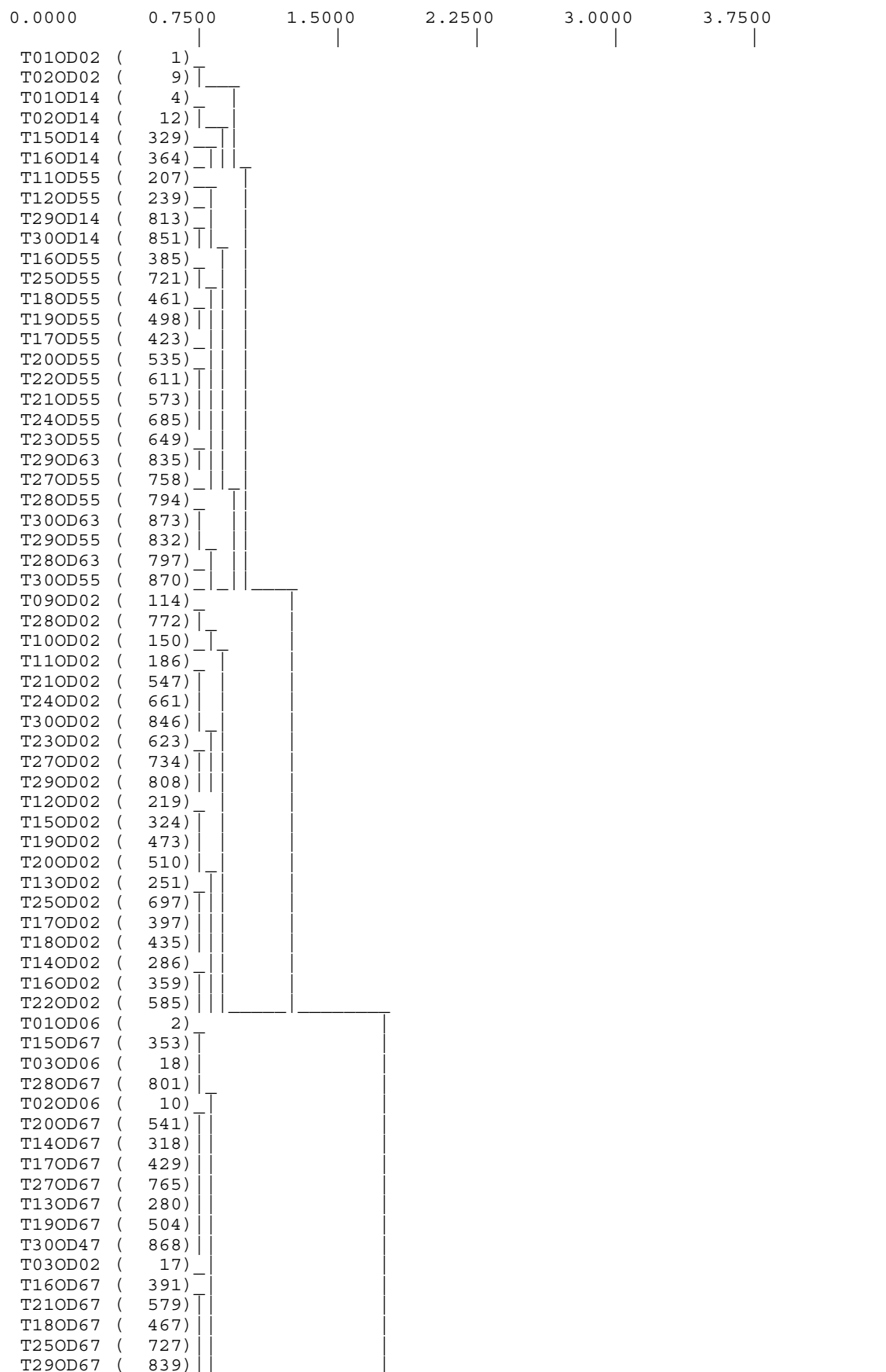
From Group	To Group	No. of Cases	Comments
7	6	1	Small decreases in cover and species richness. A shift to a community with greater cover of <i>Paractaenum refractum</i> .
8	2	3	Increased cover and species richness. Generally a shift towards a better condition that was recorded only in Autumn.
8	3	1	Increased cover, especially of <i>Brassica tournefortii</i> , and species richness. Generally a shift towards a more ephemeral community.
8	4	1	Decreased cover and species richness, although this shift would generally be expected to result in greater cover values.
8	9	3	Large increases in cover and species richness. Decreases in cover of <i>Sclerolaena</i> spp. Were more than offset by increases in the low shrubs <i>Maireana integra</i> , <i>Atriplex vesicaria</i> and <i>Ptilotus obovatus</i> . A shift to a better condition.
8	10	4	Increased cover, especially of the grasses <i>Aristida contorta</i> and <i>Enneapogon avenaceus</i> , and species richness. Generally a shift towards a better condition and recorded more frequently in Autumn.
8	12	1	This shift is probably an artefact of the data. Many grasses were not identified to species level in this relevé. The site returned to its former group at the next monitoring.
8	14	3	Similar cover and slightly higher species richness. Increases were mainly of grasses, especially <i>Enneapogon cylindricus</i> , although there were decreases in <i>Sclerolaena</i> spp. A shift to a better condition that was recorded only during Autumn.
8	17	1	Decreased cover, especially of <i>Sclerolaena diacantha</i> and <i>Brassica tournefortii</i> , and species richness. There was increased cover of grasses and this is generally a shift to a better condition.
8	20	1	Large decrease in cover but with similar species richness. The decrease was mainly in <i>Dodonaea viscosa</i> and followed a decrease during the previous monitoring. The former very high cover values were never reached again and probably represent the natural death of one or more individuals. There was also less cover of <i>Brassica tournefortii</i> . This change between groups would generally result in a large increase in cover values and represent a shift to a better condition.
9	2	1	Increased cover and species richness, although median values for these groups indicate that the reverse would normally be the case. This is a shift towards a vegetation community with more dune species.
9	8	2	Similar cover but increased species richness, although the median values for these groups indicate that both would normally decrease in this shift. There were large decreases in cover of perennial low shrubs, especially <i>Maireana integra</i> , and also in <i>Sclerolaena diacantha</i> and <i>Eriochiton sclerolaenoides</i> . A shift to a worse condition.
9	10	1	Decreased cover, especially of <i>Sclerolaena</i> spp. And <i>Atriplex vesicaria</i> , but increased species richness. Although median values for these two groups are similar, this is a shift towards a worse condition.
9	11	1	Large increases in cover, especially of <i>Sclerolaena</i> spp., <i>Stipa nitida</i> and <i>Eriochiton sclerolaenoides</i> , and species richness. Although the group median values are less than was recorded in this case, this is a shift from a swale community towards a dune-base community rather than a shift to a better condition.

From Group	To Group	No. of Cases	Comments
9	14	1	Similar cover and species richness, although the median values for these groups indicate that increased values could be expected. This shift was caused by <i>Maireana integrata</i> being replaced by <i>Sclerolaena parallelicuspis</i> , a shift towards a different community which was not maintained.
9	21	4	Increased cover but decreased species richness. A shift towards an <i>Atriplex vesicaria</i> dominated low shrubland community. Species richness reduces as <i>Atriplex vesicaria</i> becomes more dominant.
10	1	1	Similar cover, although cover of <i>Brassica tournefortii</i> increased, but decreased species richness. A shift to a worse condition.
10	2	6	Decreased cover, especially of grasses, but increased species richness. This shift was recorded most frequently in Spring.
10	3	2	Decreased cover and species richness. A shift to a worse condition.
10	4	1	Increased cover, especially of <i>Salsola kali</i> , and species richness, although there was a decrease in cover of grasses. Median values for these groups indicate that an increase in cover could be expected.
10	8	4	Decreased cover, especially of grasses, and species richness. Generally a shift to a worse condition that was recorded more frequently in Spring.
10	9	1	Decreased cover and species richness, although median values for the two groups indicate that the reverse is likely to be the case. There was a small increase in cover of <i>Atriplex vesicaria</i> and this is generally a shift to a better condition.
10	11	5	Increased cover, especially of <i>Enneapogon avenaceus</i> , and species richness. A shift towards a grassland community that was recorded only during Spring.
10	12	1	Large increases in cover, especially <i>Enneapogon avenaceus</i> and <i>E. cylindricus</i> , and species richness. A shift towards a grassland dominated by <i>E. avenaceus</i> rather than <i>Aristida contorta</i> .
10	14	1	Decreased cover and species richness, which is the opposite to what is indicated by median values for the two groups. This shift would generally be to a better condition.
10	19	2	Similar cover, but with increased <i>Aristida holathera</i> , but decreased species richness. Median values indicate that increased cover and similar species richness could be expected in this shift. The shift was caused by the increased cover of <i>Aristida holathera</i> and in one case was maintained until the end of the monitoring.
10	21	1	Increased cover, especially of <i>Atriplex vesicaria</i> but also of <i>Brassica tournefortii</i> , and species richness. This is a shift towards an <i>Atriplex vesicaria</i> low shrubland community.
11	1	1	Increased cover, mainly of <i>Brassica tournefortii</i> and <i>Sclerolaena obliquicuspis</i> , but decreased species richness. The shift to this dune based group was caused by the increase in <i>Brassica tournefortii</i> and was to a worse condition. Generally these two groups have similar median cover values.
11	4	1	Large increase in cover, especially <i>Salsola kali</i> and <i>Brassica tournefortii</i> , and species richness, although median values suggest that a slight reduction in cover and an increase in species richness could be expected. There was a decrease in <i>Sclerolaena</i> spp.
11	10	6	Reduced cover, especially of grasses, and species richness. <i>Enneapogon avenaceus</i> is partly replaced by <i>Aristida contorta</i> .

From Group	To Group	No. of Cases	Comments
12	8	1	Decreased cover, especially of grasses, and species richness. A shift to a worse condition which was not maintained.
12	10	3	Large reduction in cover, mainly of <i>Enneapogon avenaceus</i> , but similar species richness. A shift to a worse condition.
12	14	3	Reduced cover, especially of <i>Enneapogon avenaceus</i> , and species richness. This shift was caused largely by changes in the importance of <i>E. avenaceus</i> and <i>E. cylindricus</i> and reduced species richness. It was recorded only during Autumn. This shift also indicated a shift from dune-base species to more dune specific species in late 1989.
12	21	2	Similar cover and species richness, although with reduced cover of <i>Enneapogon avenaceus</i> in one case and increased cover of <i>Atriplex vesicaria</i> in the other. This is a shift towards an <i>Atriplex vesicaria</i> low shrubland community.
14	2	1	Reduced cover, especially of <i>Enneapogon cylindricus</i> , and species richness. A shift to a worse condition.
14	8	2	Reduced cover, especially of <i>Enneapogon cylindricus</i> and <i>Aristida holathera</i> , and species richness. In both cases the shift may have been an artefact of the monitoring. In one case there was also a large reduction of cover of <i>Callitris glaucophylla</i> , which returned to its former level at the next monitoring, and in the other grasses were not identified to species level. In the first case, the site was in Group 14 for 19 of the 21 monitoring events and in the other case the site returned to Group 14 at the next monitoring and then stayed there.
14	9	1	Reduced cover, especially of <i>Sclerolaena parallelicuspis</i> , and species richness. There was a large increase in cover of <i>Maireana integra</i> and this is a shift towards a vegetation community with more swale species.
14	10	2	Small reductions in cover and species richness. A shift from grassy understorey dominated by <i>Enneapogon cylindricus</i> to one dominated by forbs and <i>Aristida holathera</i> . This shift was recorded only during Autumn.
14	12	6	Slightly increased cover but decreased species richness. The shift was caused by the grassy understorey becoming dominated by <i>Enneapogon avenaceus</i> rather than <i>E. cylindricus</i> and by increased cover of <i>Atriplex vesicaria</i> . A shift towards a low shrubland community that was recorded only in Spring, with more dune-base rather than dune species following the March 1989 rains.
15	8	1	Decreased cover and species richness. The shift was caused by the absence of <i>Maireana astrotricha</i> and <i>Sclerolaena ventricosa</i> and by the appearance of <i>Atriplex holocarpa</i> . A shift to a worse condition.
17	1	4	Reduced cover, especially of grasses, and species richness. Increased cover of <i>Brassica tournefortii</i> . A shift to a worse condition.
17	2	4	Reduced cover, especially of grasses, and species richness. A shift to a worse condition.
17	10	2	Reduced cover, mainly of <i>Aristida contorta</i> , with similar species richness. This shift was recorded only in Autumn.
17	19	4	Reduced cover and species richness. Less <i>Aristida contorta</i> and more <i>A. holathera</i> . A shift towards a worse condition.

From Group	To Group	No. of Cases	Comments
19	1	1	Large increase in cover, mainly of <i>Brassica tournefortii</i> , and species richness. A shift to a worse condition.
19	2	10	Reduced cover, particularly of grasses, but similar species richness. A shift away from a grassland community that was recorded most frequently in Autumn.
19	3	1	Reduced cover, particularly of <i>Aristida holathera</i> , but similar species richness. A shift to a worse condition.
19	4	2	Increased cover, especially of <i>Salsola kali</i> and <i>Brassica tournefortii</i> , and species richness. Reduced cover of <i>Aristida holathera</i> . A shift to a less desirable condition that was recorded only in Spring.
19	5	1	Reduced cover, especially of <i>Aristida holathera</i> , and species richness. A shift to a worse condition.
19	10	1	Increased cover and species richness. Median cover values indicate that a decrease in cover could be expected with this shift. Increases were mainly in <i>Brassica tournefortii</i> , <i>Salsola kali</i> and other forbs, with decreases in some grasses, especially <i>Aristida holathera</i> . Generally a shift towards a swale low shrubland vegetation community.
19	14	1	Increased cover but decreased species richness. Increases were mainly in <i>Enneapogon cylindricus</i> and <i>Atriplex vesicaria</i> , with decreases in <i>Aristida holathera</i> .
19	17	4	Slightly increased cover and species richness. Reduced cover of <i>Aristida holathera</i> and an increase in cover of <i>A. contorta</i> .
20	1	1	A large increase in cover and a smaller one in species richness. Median values for these groups would suggest that decreased cover but similar species richness could have been expected from this shift. The largest increases were in <i>Brassica tournefortii</i> and <i>Paractaenum refractum</i> , with a smaller increase in <i>Dodonaea viscosa</i> . Probably a shift to a less desirable condition.
21	3	1	Large decrease in cover and a smaller one in species richness. This shift was caused by the loss of all <i>Atriplex vesicaria</i> at the site. This is a shift to a worse condition. <i>Atriplex vesicaria</i> did not re-establish at the site, which shifted into Group 10 and remained there until the end of the monitoring.
21	9	3	Increased cover and species richness. There were large increases in cover of <i>Dactyloctenium radulans</i> , <i>Dodonaea viscosa</i> , <i>Brassica tournefortii</i> and <i>Sclerolaena</i> spp., although not at all sites. A reduction in cover of <i>Atriplex vesicaria</i> indicated a shift towards a less desirable condition.
21	11	1	Large decrease in cover, mainly of <i>Atriplex vesicaria</i> , but an increase in species richness. This site returned to Group 21 in about three years when <i>Atriplex vesicaria</i> had regained nearly half of its former cover, but had not returned to its former maximum level by the end of the monitoring.
21	12	1	Similar cover and species richness, although median values for the groups suggest that an increase in cover could be expected from this shift. There was a large increase in cover of <i>Enneapogon avenaceus</i> , and a small decrease in <i>Atriplex vesicaria</i> . A shift away from low shrubland towards a grassland community.
21	14	1	Increased cover, especially of <i>Enneapogon avenaceus</i> , <i>E. cylindricus</i> and <i>Atriplex vesicaria</i> , and species richness. This shift was also due to a more diverse understorey after the March 1989 rains.

APPENDIX S DENDROGRAM OF ADULT SHRUB DENSITY AT OLYMPIC DAM SITES



T120D27	(	229)	|	
T210D83	(	581)	|	
T220D67	(	617)	|	
T230D67	(	655)	|	
T290D47	(	830)	|	
T180D66	(	466)	|	
T230D47	(	645)	|	
T240D47	(	683)	|	
T300D83	(	879)	|	
T050D14	(	29)	|	
T120D57	(	240)	|	
T130D57	(	275)	|	
T140D82	(	319)	|	
T060D14	(	42)	|	
T110D14	(	191)	|	
T120D14	(	224)	|	
T140D14	(	291)	|	
T130D14	(	256)	|	
T170D14	(	402)	|	
T200D14	(	515)	|	
T230D14	(	628)	|	
T270D14	(	739)	|	
T130D55	(	274)	|	
T240D14	(	666)	|	
T180D14	(	440)	|	
T190D14	(	478)	|	
T250D14	(	702)	|	
T220D14	(	590)	|	
T280D14	(	777)	|	
T100D55	(	174)	|	
T160D06	(	360)	|	
T170D06	(	398)	|	
T130D06	(	252)	|	
T150D06	(	325)	|	
T230D06	(	624)	|	
T130D49	(	272)	|	
T140D06	(	287)	|	
T200D06	(	511)	|	
T190D49	(	495)	|	
T180D06	(	436)	|	
T190D06	(	474)	|	
T220D49	(	608)	|	
T220D06	(	586)	|	
T200D49	(	532)	|	
T280D06	(	773)	|	
T290D43	(	827)	|	
T140D49	(	309)	|	
T180D49	(	458)	|	
T160D49	(	382)	|	
T170D49	(	420)	|	
T240D06	(	662)	|	
T270D06	(	735)	|	
T210D14	(	552)	|	
T210D49	(	570)	|	
T250D06	(	698)	|	
T300D06	(	847)	|	
T290D06	(	809)	|	
T130D27	(	262)	|	
T160D27	(	371)	|	
T210D06	(	548)	|	
T140D27	(	297)	|	
T140D57	(313)		
T170D27	(409)		
T280D27	(784)		
T150D27	(336)		
T230D27	(635)		
T180D27	(447)		
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T190D27	(484)		
T240D27	(673)		
T270D27	(746)		

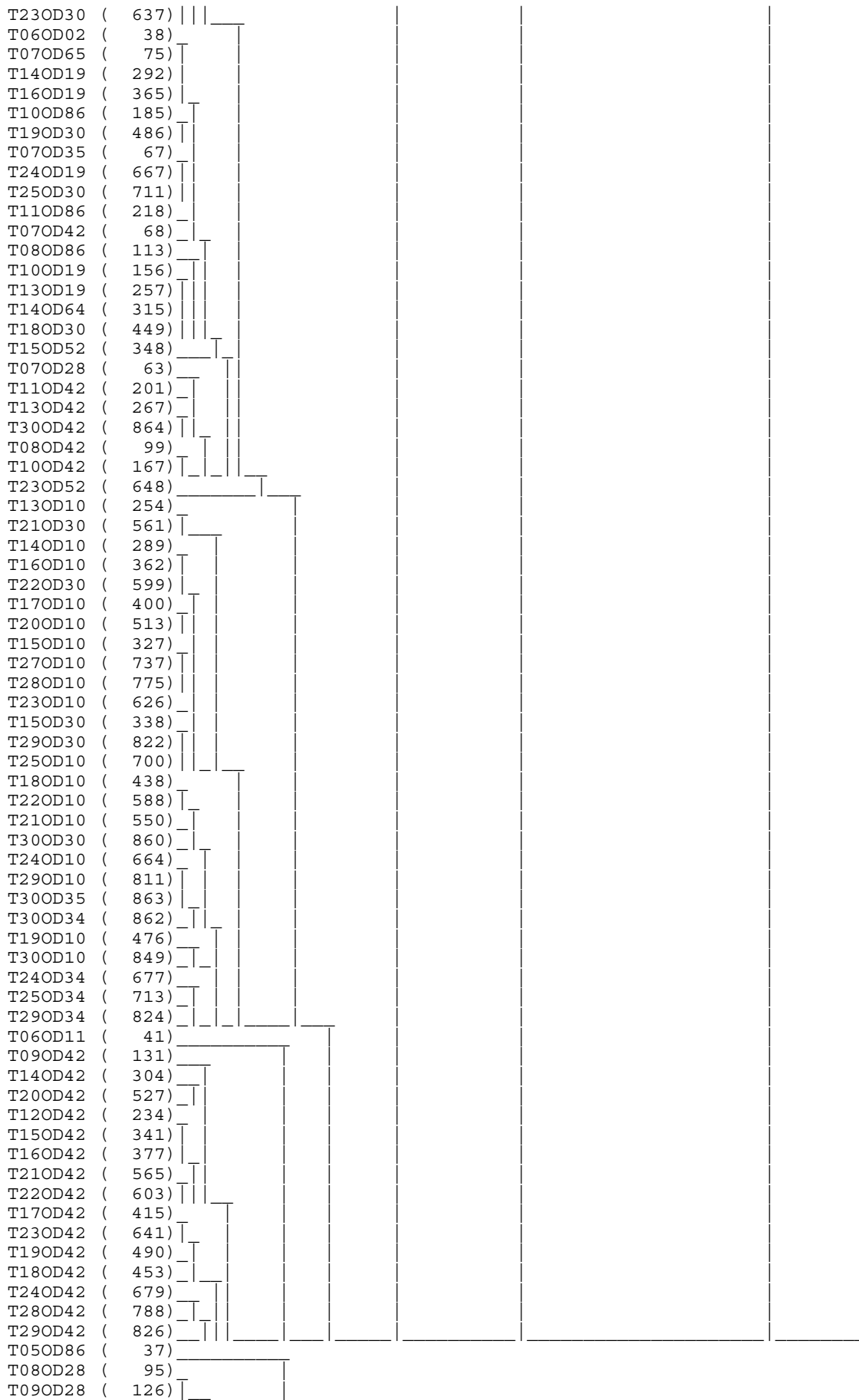
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T130D82	(281)						
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T300D43	(865)						
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T020D83	(13)						
T040D66	(24)						
T060D66	(45)						
T070D81	(78)						
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T040D67	(25)						
T100D66	(179)						
T050D06	(27)						
T080D66	(107)						
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T130D46	(270)						
T200D52	(534)						
T250D46	(718)						
T080D47	(103)						
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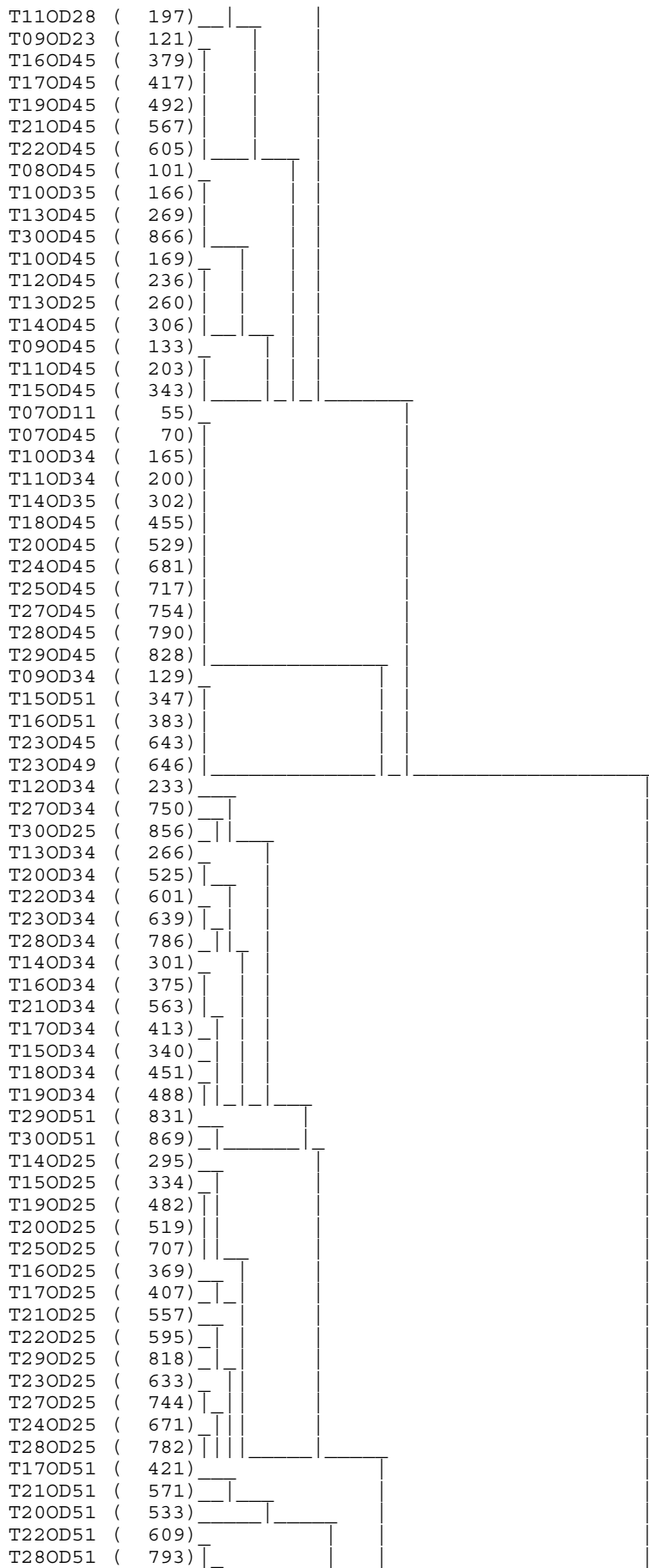
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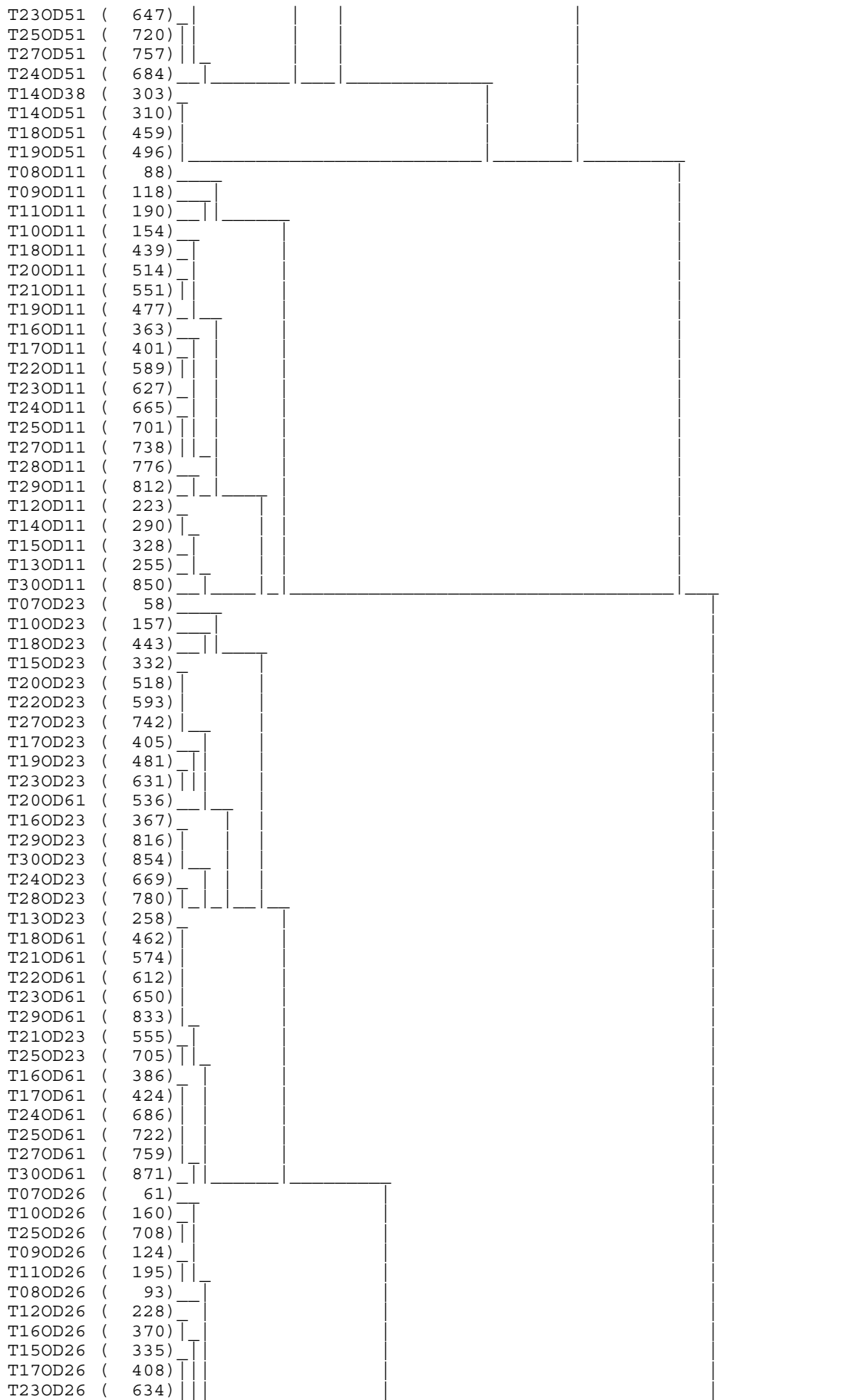
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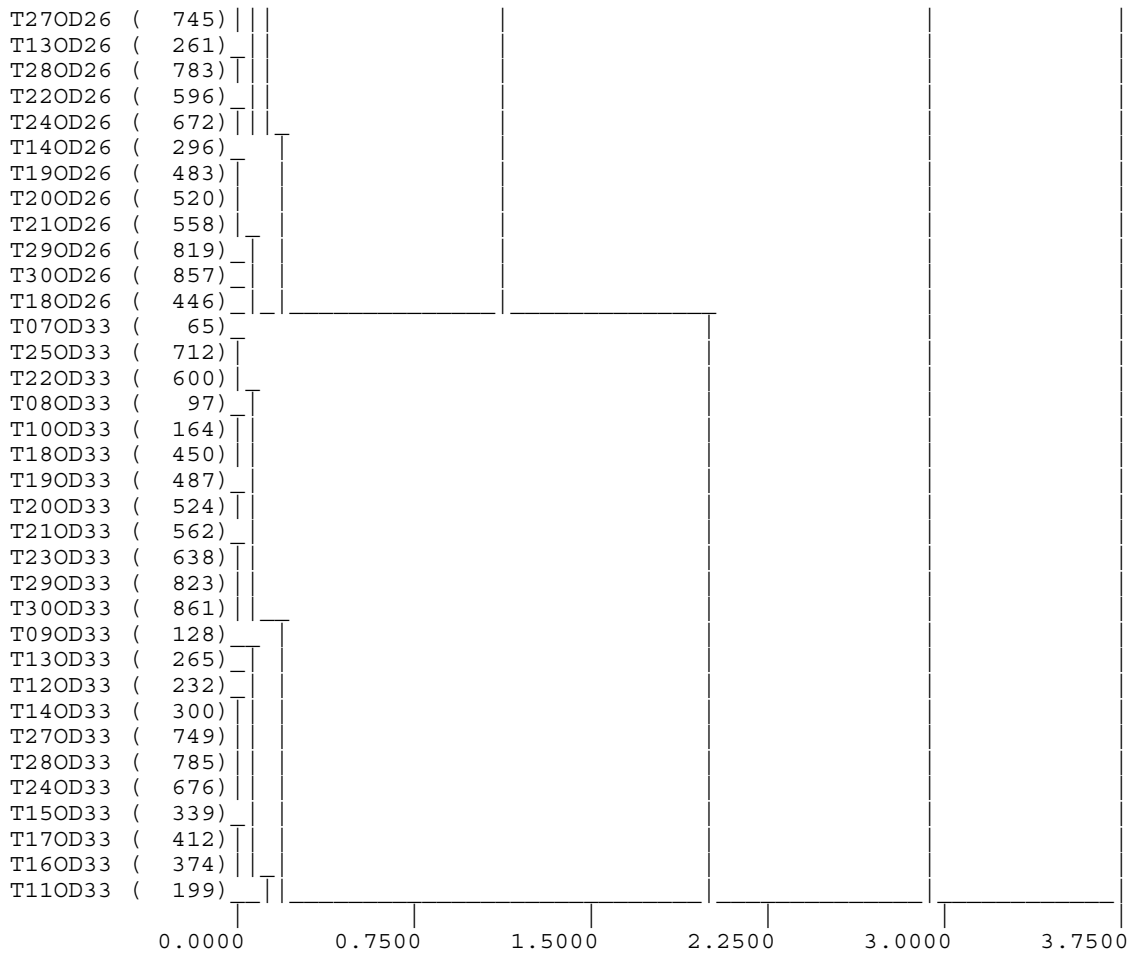
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T210D35	(564)					
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T230D35	(640)					
T240D35	(678)					
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T100D28	(162)					
T140D28	(298)					
T070D86	(83)					
T090D25	(123)					
T090D35	(130)					
T170D35	(414)					
T180D25	(445)					
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T090D64	(141)					
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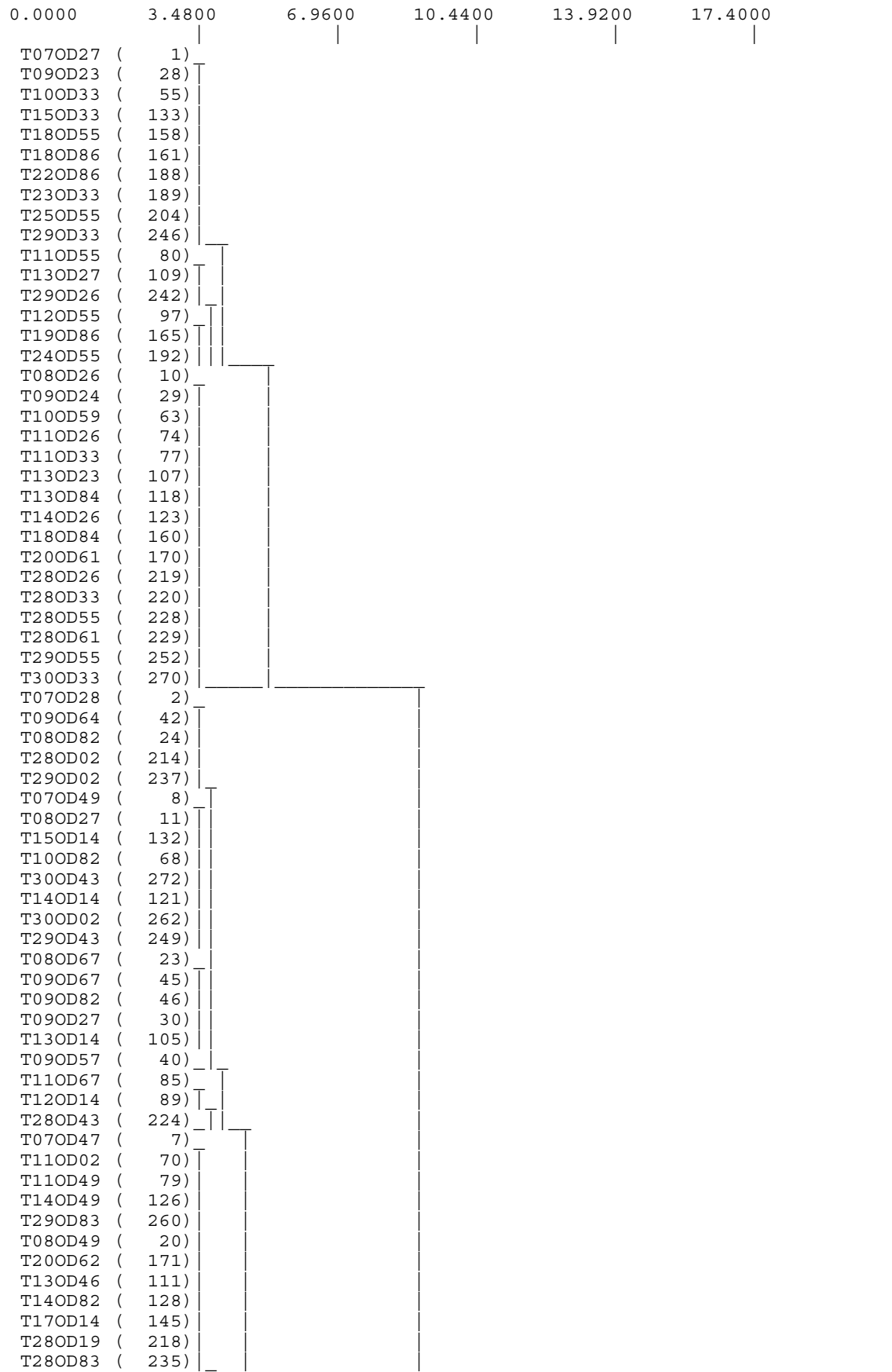








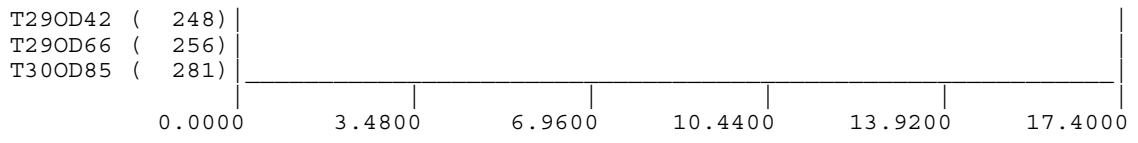
APPENDIX T DENDROGRAM OF JUVENILE SHRUB DENSITY AT OLYMPIC DAM SITES



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T280D62	(230)			
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T090D19	(27)			
T280D67	(233)			
T300D28	(268)			
T090D49	(38)			
T110D19	(72)			
T080D33	(14)			
T120D59	(99)			
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T210D86	(183)			
T100D27	(53)			
T120D57	(98)			
T140D57	(127)			
T090D33	(33)			
T290D86	(261)			
T130D57	(113)			
T130D35	(110)			
T150D35	(134)			
T160D35	(142)			
T170D35	(149)			
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T190D35	(164)			
T140D33	(124)			
T170D52	(150)			
T070D34	(3)			
T100D49	(59)			
T110D66	(84)			
T120D24	(91)			
T140D46	(125)			
T280D46	(226)			
T280D66	(232)			
T290D27	(243)			
T290D62	(253)			
T300D42	(271)			
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T300D82	(278)			
T080D30	(13)			
T080D86	(25)			
T090D30	(32)			
T100D02	(49)			
T100D19	(51)			
T100D65	(65)			
T100D86	(69)			

T110D64	(83)			
T130D85	(119)			
T140D84	(129)			
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T210D06	(174)			
T210D27	(177)			
T290D47	(251)			
T300D19	(266)			
T300D27	(267)			
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T300D47	(274)			
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T080D46	(18)			
T100D57	(62)			
T110D86	(87)			
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T150D49	(137)			
T280D11	(216)			
T290D06	(238)			
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T080D66	(22)			
T090D83	(47)			
T110D06	(71)			
T210D11	(175)			
T220D11	(185)			
T280D47	(227)			
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T250D14	(199)			
T290D71	(258)			
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T280D63	(231)			
T250D86	(209)			
T090D46	(36)			
T090D47	(37)			
T090D65	(43)			
T120D11	(88)			
T120D43	(94)			
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T170D62	(151)			
T180D14	(155)			
T180D62	(159)			
T240D06	(190)			
T240D86	(196)			
T250D28	(200)			
T250D35	(203)			
T250D62	(205)			
T280D14	(217)			
T280D35	(222)			

T280D42	(223)
T290D14	(240)
T290D34	(247)
T300D14	(265)
T300D30	(269)
T070D42	(5)
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T080D42	(15)
T090D43	(34)
T100D66	(66)
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T120D19	(90)
T120D30	(92)
T130D19	(106)
T130D24	(108)
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T200D11	(167)
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T250D82	(207)
T250D83	(208)
T270D06	(210)
T270D28	(211)
T270D34	(212)
T270D35	(213)
T280D34	(221)
T290D28	(	244)
T290D30	(	245)
T290D65	(	255)
T300D84	(	280)
T080D45	(	17)
T090D28	(	31)
T090D45	(	35)
T100D28	(	54)
T100D43	(	56)
T100D47	(	58)
T110D46	(	78)
T120D42	(	93)
T130D11	(	104)
T140D24	(	122)
T150D52	(	138)
T160D11	(	141)
T170D19	(	146)
T170D27	(	147)
T170D34	(	148)
T170D66	(	152)
T180D24	(	156)
T200D28	(	168)
T200D85	(	173)
T210D62	(	179)
T210D65	(	180)
T210D66	(	181)
T220D43	(	186)
T220D52	(	187)
T240D47	(	191)
T240D67	(	194)
T250D67	(	206)
T280D45	(	225)
T280D86	(	236)
T290D19	(	241)



APPENDIX U CONDITIONS FOR JUVENILE SHRUB EMERGENCE

Percentage of sites with adult shrubs at which juvenile shrubs were recorded and the rainfall event(s) that may have allowed germination and establishment of these seedlings (seedlings at the dicotyledon stage were not recorded). Falls of <10 mm have been omitted unless they formed part of a larger rainfall event over several days.

Survey Date	% of Sites	Comments on Recent Rainfall
May 1986	24.2	63 mm in 2 falls (36 and 27mm) 12 days apart during May.
May 1987	53.1	46.5 mm over 7 days in January; 28.6 mm 33 days later in February
November 1987	63.9	18 mm over 13 days in May, with the largest fall of 10 mm; 11 mm over 15 days in June, 25 days after the last May rain; 19.3 mm at the end of August.
May 1988	58.3	22 mm over 3 days at the end of March; 29.5 mm over 6 days in mid May.
November 1988	52.9	18 mm over 2 days in early June, 4 mm 4 days later; 10.5 mm in 3 falls over 6 days in July; no other rainfall events >3 mm prior to monitoring.
May 1989	45.7	84 mm over 7 days in early December and 30 mm over 4 days in late December; 239.5 mm over 7 days in mid March and 46 mm over 6 days a week later; 11.8 mm over 4 days in mid April; 14.2 mm over 10 days in early May.
November 1989	48.6	17.5 mm in 1 fall at the end of May; 28.5 mm over 3 days in early June; 15 mm over 17 days in late July; 20 mm over 5 days in late October.
June 1990	25.6	39.6 mm over 2 days in late November, with 9.6 mm over 3 days starting 4 days later; 14.7 mm in January, with 7 mm 4 days later; 16 mm in 1 fall in mid April, with 0.2 mm on the following day.
December 1990	28.6	None; 18.2 mm fell in mid December, on the last day of monitoring.
May 1991	10.5	26.8 mm over 2 days at the end of March.
November 1991	23.1	14.8 over 5 days in early June; 11.2 mm over 5 days in early July; 23.8 mm over 5 days in early November, one week prior to the start of monitoring.
May 1992	21.1	55 mm in 1 fall in early February and 63.8 mm over 2 days in late February; 11 mm in 1 fall in mid April; 33.2 mm in 1 fall 17 days prior to the start of monitoring in May.
November 1992	10.8	27.6 mm over 2 days in August; 29.2 mm in 1 fall in late September; 17.5 mm over 2 days in late October and 19.8 mm over 2 days starting 4 days later.
May 1993	21.6	116.6 mm over 4 days in December; 21.1 mm over 4 days in January.
November 1993	26.3	16.1 mm over 5 days in early July; 37.1 mm over 6 days in early October and 19.4 mm over 3 days in mid October.
May 1994	26.3	22 mm in 1 fall in December; 46.8 mm over 3 days in February.
November 1994	2.6	71.2 mm over 3 days in early June.
May 1995	19.4	25.6 mm in 1 fall in mid January.
November 1995	35.1	18 mm over 8 days in mid June; 13.9 mm over 6 days in mid July; 24 mm over 2 days in late October; 9.8 mm over 2 days in early November and 22.1 mm over 2 days in mid November, 10 days prior to the start of monitoring.
May 1996	10.5	All rainfall events <9 mm during this period.
November 1996	63.9	10.1 mm over 2 days in early July and 15.2 mm over 2 days in late July; 32.1 mm over 4 days at the end of September.

Survey Date	% of Sites	Comments on Recent Rainfall
May 1997	65.8	21.6 mm in 1 fall in early December; 21.2 mm in 1 fall in late January; 143.7 mm over 5 days in early February.
November 1997	55.3	23.6 mm over 4 days at the end of August/early September, 4.4 mm 4 days later and 7.6 mm over 8 days starting 4 days after this; 10.4 mm in one fall at the end of October; 12.6 mm in 6 falls over 10 days in mid November.

APPENDIX V COMBINED GROUP MEMBERSHIP, EXCLOSURE AND OLYMPIC DAM SITES

GROUP: 1		53 MEMBR/S					
T070D01 :	1	T090D13 :	127	T130D64 :	431	T070D13 :	13
T090D32 :	146	T110D19 :	261	T110D46 :	288	T110D69 :	305
T080D08 :	65	T100D04 :	180	T100D46 :	222	T070D08 :	8
T100D15 :	191	T070D39 :	39	T110D45 :	287	T080D01 :	58
T110D44 :	286	T110D13 :	255	T140D64 :	496	T110D32 :	274
T110D08 :	250	T160D64 :	620	T080D32 :	89	T080D37 :	93
T070D03 :	3	T080D04 :	61	T070D22 :	22	T080D64 :	108
T110D54 :	294	T100D51 :	227	T140D54 :	490	T100D43 :	219
T070D50 :	49	T070D51 :	50	T100D54 :	230	T120D64 :	365
T120D41 :	346	T070D36 :	36	T070D04 :	4	T070D64 :	51
T110D04 :	246	T070D37 :	37	T070D09 :	9	T110D23 :	265
T070D42 :	42	T080D03 :	60	T070D21 :	21	T080D13 :	70
T110D43 :	285	T100D08 :	184	T100D32 :	208	T100D50 :	226
T090D04 :	118						
GROUP: 2		164 MEMBR/S					
T070D15 :	15	T070D32 :	32	T070D43 :	43	T070D44 :	44
T070D45 :	45	T070D18 :	18	T170D73 :	701	T170D74 :	702
T280D08 :	1421	T280D73 :	1466	T280D74 :	1467	T090D25 :	139
T170D25 :	659	T240D25 :	1198	T160D25 :	586	T270D25 :	1358
T110D15 :	257	T110D21 :	263	T110D25 :	267	T090D44 :	157
T240D44 :	1210	T240D51 :	1213	T250D25 :	1278	T250D42 :	1289
T270D42 :	1368	T270D51 :	1372	T250D44 :	1290	T250D51 :	1293
T270D44 :	1369	T190D77 :	837	T200D77 :	918	T220D77 :	1077
T210D77 :	996	T230D77 :	1155	T240D77 :	1232	T250D77 :	1313
T270D77 :	1393	T280D77 :	1470	T070D17 :	17	T080D17 :	74
T100D69 :	241	T120D69 :	370	T170D80 :	708	T120D40 :	345
T140D40 :	476	T130D40 :	411	T070D69 :	56	T080D69 :	113
T190D40 :	811	T100D13 :	189	T100D37 :	213	T170D77 :	705
T100D25 :	201	T100D44 :	220	T100D18 :	194	T110D18 :	260
T100D35 :	211	T110D35 :	277	T140D03 :	439	T180D40 :	748
T070D31 :	31	T080D31 :	88	T140D48 :	484	T080D40 :	96
T090D17 :	131	T100D48 :	224	T140D70 :	502	T100D70 :	242
T120D56 :	361	T240D48 :	1212	T230D53 :	1137	T240D53 :	1214
T100D31 :	207	T120D31 :	336	T100D40 :	216	T100D53 :	229
T240D60 :	1218	T120D48 :	353	T240D56 :	1217	T160D40 :	600
T240D40 :	1207	T160D56 :	616	T160D60 :	617	T160D66 :	622
T120D17 :	322	T160D17 :	578	T130D17 :	388	T140D17 :	453
T130D46 :	417	T180D46 :	754	T160D46 :	606	T240D54 :	1215
T160D54 :	614	T160D69 :	625	T170D69 :	699	T270D80 :	1396
T170D17 :	651	T170D54 :	688	T170D46 :	680	T180D17 :	725
T240D17 :	1194	T170D79 :	707	T180D79 :	781	T190D79 :	839
T090D18 :	132	T090D56 :	167	T270D64 :	1380	T100D03 :	179
T240D64 :	1221	T240D66 :	1223	T110D09 :	251	T280D01 :	1414
T280D13 :	1426	T100D56 :	232	T110D56 :	296	T170D64 :	694
T170D03 :	637	T170D70 :	700	T160D03 :	564	T240D03 :	1181
T160D29 :	590	T170D29 :	663	T180D03 :	711	T190D03 :	785
T200D03 :	866	T210D03 :	944	T120D53 :	358	T250D66 :	1302
T160D53 :	613	T280D40 :	1443	T200D53 :	900	T210D40 :	970
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T180D48 :	756	T230D66 :	1146	T220D66 :	1068	T250D48 :	1292
T250D56 :	1297	T250D64 :	1300	T250D54 :	1295	T180D66 :	770
T190D66 :	828	T200D66 :	909	T210D66 :	987	T070D46 :	46
T070D66 :	53	T070D47 :	47	T080D47 :	103	T090D46 :	159
T090D47 :	160	T090D66 :	173	T100D47 :	223	T110D47 :	289
T140D66 :	498	T100D66 :	238	T110D66 :	302	T120D66 :	367
T130D66 :	433	T150D66 :	558	T170D66 :	696	T240D47 :	1211
GROUP: 3		41 MEMBR/S					
T070D29 :	29	T070D40 :	40	T070D38 :	38	T080D48 :	104
T090D54 :	165	T100D01 :	177	T110D31 :	273	T110D01 :	243
T110D48 :	290	T110D37 :	279	T110D03 :	245	T110D40 :	282
T110D17 :	259	T110D64 :	300	T170D40 :	674	T100D29 :	205
T140D53 :	489	T090D03 :	117	T090D69 :	176	T170D48 :	682

T08OD09 :	66	T09OD09 :	123	T10OD09 :	185	T13OD03 :	374
T09OD08 :	122	T09OD37 :	151	T18OD29 :	737	T25OD13 :	1270
T08OD29 :	86	T12OD29 :	334	T14OD29 :	465	T28OD17 :	1430
T07OD70 :	57	T15OD40 :	542	T09OD40 :	153	T08OD70 :	114
T09OD01 :	115	T11OD29 :	271	T18OD53 :	761	T09OD35 :	149
T17OD53 :	687						
GROUP :	4	42 MEMBR/S					
T07OD25 :	25	T08OD25 :	82	T08OD18 :	75	T19OD64 :	826
T28OD54 :	1451	T08OD43 :	99	T28OD04 :	1417	T28OD48 :	1448
T28OD64 :	1457	T18OD77 :	779	T18OD80 :	782	T18OD73 :	775
T18OD74 :	776	T08OD46 :	102	T08OD66 :	110	T20OD64 :	907
T28OD47 :	1447	T28OD66 :	1459	T28OD03 :	1416	T12OD03 :	309
T21OD64 :	985	T18OD64 :	768	T12OD39 :	344	T28OD25 :	1434
T28OD32 :	1439	T28OD51 :	1449	T28OD42 :	1445	T28OD44 :	1446
T28OD18 :	1431	T12OD04 :	310	T12OD13 :	319	T19OD54 :	820
T20OD54 :	901	T21OD54 :	979	T12OD46 :	351	T12OD47 :	352
T23OD54 :	1138	T28OD69 :	1462	T22OD54 :	1060	T12OD54 :	359
T13OD54 :	425	T18OD54 :	762				
GROUP :	5	26 MEMBR/S					
T11OD70 :	306	T27OD66 :	1382	T27OD56 :	1376	T27OD48 :	1371
T13OD29 :	400	T13OD31 :	402	T15OD17 :	519	T25OD01 :	1259
T15OD56 :	556	T22OD56 :	1062	T27OD17 :	1354	T25OD47 :	1291
T16OD79 :	633	T25OD17 :	1274	T27OD13 :	1350	T27OD54 :	1374
T17OD60 :	691	T22OD03 :	1025	T27OD08 :	1346	T16OD77 :	631
T27OD47 :	1370	T17OD56 :	690	T23OD56 :	1140	T27OD01 :	1340
T23OD60 :	1141	T23OD03 :	1103				
GROUP :	6	32 MEMBR/S					
T13OD56 :	427	T23OD48 :	1134	T24OD70 :	1227	T25OD70 :	1306
T27OD53 :	1373	T18OD70 :	774	T19OD70 :	832	T28OD56 :	1453
T16OD48 :	608	T18OD56 :	764	T18OD60 :	765	T16OD70 :	626
T19OD48 :	816	T19OD60 :	823	T21OD60 :	982	T21OD48 :	975
T22OD48 :	1056	T22OD60 :	1063	T21OD56 :	981	T14OD56 :	492
T20OD48 :	897	T19OD56 :	822	T20OD56 :	903	T20OD60 :	904
T22OD70 :	1072	T28OD53 :	1450	T23OD64 :	1144	T20OD70 :	913
T23OD70 :	1150	T21OD70 :	991	T22OD64 :	1066	T28OD70 :	1463
GROUP :	7	64 MEMBR/S					
T07OD05 :	5	T16OD05 :	566	T08OD05 :	62	T09OD05 :	119
T10OD05 :	181	T24OD05 :	1183	T08OD38 :	94	T07OD07 :	7
T09OD07 :	121	T12OD05 :	311	T13OD05 :	376	T19OD05 :	787
T18OD05 :	713	T14OD05 :	441	T20OD05 :	868	T22OD05 :	1027
T21OD05 :	946	T23OD05 :	1105	T28OD05 :	1418	T07OD24 :	24
T10OD24 :	200	T11OD24 :	266	T12OD08 :	314	T13OD08 :	379
T14OD08 :	444	T08OD07 :	64	T10OD07 :	183	T11OD07 :	249
T09OD24 :	138	T15OD07 :	509	T12OD07 :	313	T07OD41 :	41
T08OD41 :	97	T09OD29 :	143	T09OD31 :	145	T25OD03 :	1261
T27OD03 :	1342	T11OD05 :	247	T12OD70 :	371	T15OD29 :	531
T28OD33 :	1440	T13OD53 :	424	T23OD40 :	1129	T25OD40 :	1287
T21OD53 :	978	T22OD53 :	1059	T25OD53 :	1294	T27OD70 :	1386
T15OD19 :	521	T15OD23 :	525	T15OD43 :	545	T15OD36 :	538
T10OD38 :	214	T11OD38 :	280	T17OD38 :	672	T15OD38 :	540
T17OD05 :	639	T25OD05 :	1263	T12OD38 :	343	T13OD38 :	409
T14OD38 :	474	T18OD38 :	746	T17OD35 :	669	T17OD39 :	673
GROUP :	8	18 MEMBR/S					
T12OD52 :	357	T13OD52 :	423	T18OD28 :	736	T18OD52 :	760
T29K4S :	1487	T29K2C2 :	1479	T29K1C2 :	1475	T29K4C :	1485
T29K4R :	1486	T29K2C1 :	1478	T29K2R :	1480	T29K2S :	1481
T29K1C1 :	1474	T29K1S :	1477	T29K1R :	1476	T29K3C :	1482
T29K3R :	1483	T29K3S :	1484				
GROUP :	9	106 MEMBR/S					

T07OD19 :	19	T28OD26 :	1435	T10OD17 :	193	T10OD19 :	195
T10OD21 :	197	T08OD19 :	76	T17OD21 :	655	T13OD19 :	390
T16OD19 :	580	T13OD21 :	392	T16OD21 :	582	T17OD20 :	654
T08OD21 :	78	T12OD19 :	324	T18OD21 :	729	T12OD21 :	326
T12OD20 :	325	T13OD20 :	391	T14OD20 :	456	T16OD20 :	581
T18OD20 :	728	T18OD19 :	727	T20OD19 :	881	T22OD19 :	1040
T21OD19 :	959	T23OD19 :	1118	T19OD19 :	800	T12OD37 :	342
T13OD37 :	408	T27OD18 :	1355	T24OD18 :	1195	T07OD20 :	20
T10OD20 :	196	T11OD20 :	262	T10OD23 :	199	T08OD20 :	77
T09OD20 :	134	T11OD26 :	268	T07OD26 :	26	T08OD23 :	80
T09OD23 :	137	T08OD26 :	83	T09OD26 :	140	T10OD26 :	202
T19OD75 :	835	T23OD75 :	1153	T20OD75 :	916	T22OD75 :	1075
T21OD75 :	994	T24OD75 :	1230	T25OD75 :	1311	T08OD34 :	91
T09OD34 :	148	T08OD39 :	95	T10OD39 :	215	T13OD39 :	410
T14OD39 :	475	T09OD39 :	152	T11OD39 :	281	T12OD35 :	340
T13OD35 :	406	T14OD35 :	471	T17OD75 :	703	T28OD75 :	1468
T28OD76 :	1469	T18OD75 :	777	T28OD19 :	1432	T28OD23 :	1433
T09OD19 :	133	T16OD75 :	629	T15OD05 :	507	T16OD73 :	627
T16OD74 :	628	T27OD19 :	1356	T27OD23 :	1357	T27OD75 :	1391
T27OD76 :	1392	T10OD34 :	210	T11OD34 :	276	T15OD39 :	541
T16OD39 :	599	T16OD28 :	589	T18OD39 :	747	T15OD03 :	505
T15OD35 :	537	T16OD35 :	596	T15OD52 :	553	T23OD52 :	1136
T16OD52 :	612	T17OD52 :	686	T22OD52 :	1058	T09OD64 :	171
T10OD64 :	236	T28OD72 :	1465	T25OD72 :	1308	T27OD72 :	1388
T27OD35 :	1365	T18OD35 :	743	T19OD35 :	809	T20OD35 :	890
T21OD35 :	968	T22OD35 :	1049	T24OD35 :	1205	T25OD35 :	1285
T28OD35 :	1441	T23OD35 :	1127				

GROUP: 10 84 MEMBR/S

T12OD26 :	331	T13OD26 :	397	T14OD26 :	462	T15OD26 :	528
T19OD26 :	803	T20OD26 :	884	T21OD26 :	962	T18OD26 :	734
T22OD26 :	1043	T23OD26 :	1121	T24OD26 :	1199	T27OD26 :	1359
T25OD26 :	1279	T14OD19 :	455	T14OD21 :	457	T15OD21 :	523
T24OD19 :	1196	T25OD19 :	1276	T17OD19 :	653	T16OD26 :	587
T17OD26 :	660	T27OD73 :	1389	T27OD74 :	1390	T15OD20 :	522
T25OD23 :	1277	T17OD23 :	657	T24OD23 :	1197	T24OD76 :	1231
T25OD76 :	1312	T20M1C :	855	T23M1C :	1095	T22M1C :	1014
T24M1C :	1173	T21M1C :	936	T25M1C :	1250	T27M1C :	1334
T15OD18 :	520	T24K3S :	1169	T22K1C1 :	1000	T22K1S :	1003
T22K3C :	1008	T22K3S :	1010	T20K1C1 :	841	T20K1S :	844
T15OD24 :	526	T16OD24 :	585	T17OD24 :	658	T16OD23 :	584
T20K3C :	849	T21K3C :	930	T21K3S :	932	T20K3S :	851
T20K1R :	843	T21K1R :	924	T25K3S :	1246	T27K3S :	1330
T24K3R :	1168	T25K3R :	1245	T27K3R :	1329	T23K3C :	1089
T24K3C :	1167	T21K1C1 :	922	T23K1C1 :	1081	T24K1C1 :	1159
T22K1R :	1002	T23K1R :	1083	T21K1S :	925	T23K1S :	1084
T24K1S :	1162	T24K1R :	1161	T27K1R :	1322	T25K1R :	1238
T28K1R :	1399	T25K1C1 :	1236	T27K1C1 :	1320	T25K3C :	1244
T27K3C :	1328	T25K1S :	1239	T27K1S :	1323	T28K1S :	1400
T28K1C1 :	1397	T28K3C :	1405	T28K3R :	1406	T28K3S :	1407

GROUP: 11 24 MEMBR/S

T13OD02 :	373	T20OD02 :	865	T15OD02 :	504	T23OD02 :	1102
T16OD02 :	563	T22OD02 :	1024	T14OD02 :	438	T21OD02 :	943
T13OD23 :	394	T19OD23 :	801	T18OD23 :	731	T23OD76 :	1154
T20OD23 :	882	T21OD23 :	960	T22OD23 :	1041	T23OD23 :	1119
T14OD23 :	459	T20OD76 :	917	T21OD76 :	995	T16OD76 :	630
T17OD76 :	704	T19OD76 :	836	T18OD76 :	778	T22K3R :	1009

GROUP: 12 23 MEMBR/S

T07OD11 :	11	T08OD11 :	68	T09OD11 :	125	T10OD11 :	187
T18OD11 :	719	T19OD11 :	793	T11OD11 :	253	T28OD11 :	1424
T07OD33 :	33	T28OD12 :	1425	T12OD11 :	317	T13OD11 :	382
T20OD11 :	874	T21OD11 :	952	T22OD11 :	1033	T23OD11 :	1111
T14OD11 :	447	T15OD11 :	513	T16OD11 :	572	T17OD11 :	645
T24OD11 :	1189	T25OD11 :	1269	T27OD11 :	1349		

GROUP: 13 26 MEMBR/S

T20M2C	:	858	T22M2C	:	1017	T23M2C	:	1098	T21M2C	:	939
T25M2C	:	1253	T24M2C	:	1176	T27M2C	:	1337	T26M2C	:	1317
T29M2C	:	1488	T20M2S	:	860	T22M2S	:	1019	T23M2S	:	1100
T24M2S	:	1178	T26M2S	:	1319	T27M2S	:	1339	T29M2S	:	1490
T21M2S	:	941	T25M2S	:	1255	T20M2R	:	859	T27M2R	:	1338
T22M2R	:	1018	T23M2R	:	1099	T24M2R	:	1177	T21M2R	:	940
T26M2R	:	1318	T25M2R	:	1254						

GROUP: 14 12 MEMBR/S

T20M3C	:	861	T25M3R	:	1257	T25M3C	:	1256	T28M3C	:	1411
T20M3R	:	862	T20M3S	:	863	T25M3S	:	1258	T28M3S	:	1413
T28M3R	:	1412	T22M3C	:	1020	T22M3R	:	1021	T22M3S	:	1022

GROUP: 15 47 MEMBR/S

T08OD24	:	81	T12OD24	:	329	T13OD24	:	395	T14OD24	:	460
T18OD24	:	732	T13OD07	:	378	T14OD07	:	443	T12OD18	:	323
T12OD43	:	348	T13OD18	:	389	T18OD18	:	726	T19OD18	:	799
T21OD18	:	958	T22OD18	:	1039	T23OD18	:	1117	T13OD43	:	414
T18OD43	:	751	T14OD18	:	454	T14OD43	:	479	T15OD69	:	561
T12OD23	:	328	T22OD76	:	1076	T16OD18	:	579	T17OD18	:	652
T17OD43	:	677	T25OD18	:	1275	T16OD43	:	603	T08OD36	:	92
T10OD36	:	212	T09OD36	:	150	T11OD36	:	278	T24OD36	:	1206
T27OD36	:	1366	T25OD36	:	1286	T28OD36	:	1442	T12OD36	:	341
T13OD36	:	407	T20OD36	:	891	T20OD18	:	880	T18OD36	:	744
T19OD36	:	810	T14OD36	:	472	T22OD36	:	1050	T16OD36	:	597
T17OD36	:	670	T21OD36	:	969	T23OD36	:	1128			

GROUP: 16 90 MEMBR/S

T08OD15	:	72	T18OD15	:	723	T16OD15	:	576	T22OD15	:	1036
T23OD15	:	1114	T19OD15	:	796	T20OD15	:	877	T21OD15	:	955
T09OD43	:	156	T17OD15	:	649	T25OD15	:	1272	T27OD15	:	1352
T24OD15	:	1192	T28OD15	:	1428	T08OD44	:	100	T13OD09	:	380
T19OD74	:	834	T18OD44	:	752	T19OD44	:	814	T08OD45	:	101
T17OD50	:	684	T24OD08	:	1186	T09OD45	:	158	T15OD25	:	527
T22OD09	:	1031	T18OD25	:	733	T22OD25	:	1042	T25OD73	:	1309
T10OD45	:	221	T18OD45	:	753	T19OD73	:	833	T20OD74	:	915
T21OD74	:	993	T22OD74	:	1074	T23OD74	:	1152	T24OD74	:	1229
T25OD74	:	1310	T08OD50	:	106	T09OD50	:	162	T18OD50	:	758
T16OD44	:	604	T22OD44	:	1054	T16OD08	:	569	T17OD08	:	642
T23OD44	:	1132	T25OD08	:	1266	T09OD15	:	129	T17OD45	:	679
T11OD50	:	292	T23OD25	:	1120	T12OD25	:	330	T13OD25	:	396
T12OD44	:	349	T13OD44	:	415	T20OD08	:	871	T21OD08	:	949
T22OD08	:	1030	T23OD08	:	1108	T14OD44	:	480	T19OD08	:	790
T13OD42	:	413	T20OD44	:	895	T18OD08	:	716	T15OD44	:	546
T21OD44	:	973	T15OD08	:	510	T12OD15	:	321	T13OD15	:	386
T12OD45	:	350	T14OD50	:	486	T12OD50	:	355	T13OD50	:	421
T15OD50	:	551	T16OD50	:	610	T20OD25	:	883	T21OD25	:	961
T14OD15	:	451	T14OD45	:	481	T13OD45	:	416	T15OD15	:	517
T15OD45	:	547	T16OD45	:	605	T19OD25	:	802	T14OD25	:	461
T21OD73	:	992	T22OD73	:	1073	T23OD73	:	1151	T24OD73	:	1228
T29M2R	:	1489	T20OD73	:	914						

GROUP: 17 12 MEMBR/S

T07OD12	:	12	T08OD12	:	69	T09OD12	:	126	T13OD12	:	383
T12OD12	:	318	T10OD12	:	188	T15OD12	:	514	T16OD12	:	573
T17OD12	:	646	T11OD12	:	254	T18OD12	:	720	T14OD12	:	448

GROUP: 18 12 MEMBR/S

T07OD49	:	48	T08OD49	:	105	T10OD49	:	225	T09OD49	:	161
T17OD49	:	683	T11OD49	:	291	T16OD49	:	609	T13OD49	:	420
T14OD49	:	485	T18OD49	:	757	T15OD49	:	550	T12OD49	:	354

GROUP: 19 49 MEMBR/S

T07OD16	:	16	T28OD16	:	1429	T08OD16	:	73	T10OD16	:	192
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T110D16 :	258	T110D41 :	283	T180D31 :	739	T090D58 :	169
T130D41 :	412	T140D41 :	477	T160D41 :	601	T150D41 :	543
T100D58 :	234	T140D58 :	494	T130D58 :	429	T170D31 :	665
T110D58 :	298	T140D31 :	467	T160D31 :	592	T150D31 :	533
T120D58 :	363	T090D16 :	130	T150D16 :	518	T160D16 :	577
T170D16 :	650	T220D16 :	1037	T270D16 :	1353	T230D16 :	1115
T270D41 :	1367	T240D16 :	1193	T250D16 :	1273	T220D41 :	1052
T250D41 :	1288	T130D16 :	387	T200D16 :	878	T180D16 :	724
T190D16 :	797	T170D41 :	675	T240D41 :	1208	T180D41 :	749
T280D41 :	1444	T090D41 :	154	T100D41 :	217	T210D16 :	956
T140D16 :	452	T200D41 :	893	T210D41 :	971	T230D41 :	1130
T190D41 :	812						

GROUP: 20 96 MEMBR/S

T080D42 :	98	T220D80 :	1080	T120D32 :	337	T200D80 :	921
T230D80 :	1158	T210D80 :	999	T190D80 :	840	T130D47 :	418
T140D47 :	483	T20K3R :	850	T21K3R :	931	T23K3R :	1090
T23K3S :	1091	T090D42 :	155	T170D32 :	666	T140D13 :	449
T150D13 :	515	T220D78 :	1078	T170D51 :	685	T130D32 :	403
T160D32 :	593	T140D46 :	482	T090D51 :	163	T180D13 :	721
T180D47 :	755	T180D78 :	780	T210D78 :	997	T190D01 :	783
T200D01 :	864	T210D01 :	942	T220D42 :	1053	T230D42 :	1131
T150D54 :	554	T180D69 :	773	T190D78 :	838	T280D80 :	1473
T200D78 :	919	T240D69 :	1226	T230D78 :	1156	T240D80 :	1235
T250D80 :	1316	T230D79 :	1157	T250D79 :	1315	T280D79 :	1472
T240D78 :	1233	T240D79 :	1234	T200D79 :	920	T210D79 :	998
T120D42 :	347	T150D32 :	534	T230D32 :	1125	T210D42 :	972
T140D32 :	468	T160D42 :	602	T210D13 :	953	T130D13 :	384
T200D13 :	875	T190D13 :	794	T190D47 :	815	T200D47 :	896
T200D04 :	867	T190D32 :	807	T210D04 :	945	T190D42 :	813
T150D04 :	506	T210D09 :	950	T220D51 :	1057	T150D42 :	544
T200D32 :	888	T200D09 :	872	T210D47 :	974	T210D32 :	966
T220D32 :	1047	T210D51 :	976	T190D69 :	831	T210D69 :	990
T200D69 :	912	T220D69 :	1071	T230D69 :	1149	T180D51 :	759
T190D51 :	817	T080D51 :	107	T130D04 :	375	T140D04 :	440
T190D04 :	786	T230D04 :	1104	T220D04 :	1026	T230D13 :	1112
T120D51 :	356	T130D51 :	422	T140D51 :	487	T150D51 :	552
T140D42 :	478	T160D51 :	611	T200D51 :	898	T200D42 :	894

GROUP: 21 73 MEMBR/S

T090D21 :	135	T170D44 :	678	T160D78 :	632	T160D80 :	634
T270D04 :	1343	T270D32 :	1363	T120D01 :	307	T170D42 :	676
T150D01 :	503	T170D01 :	635	T170D13 :	647	T130D01 :	372
T240D01 :	1179	T160D01 :	562	T150D09 :	511	T240D42 :	1209
T150D46 :	548	T190D17 :	798	T200D17 :	879	T230D17 :	1116
T220D17 :	1038	T210D17 :	957	T130D69 :	436	T250D69 :	1305
T270D69 :	1385	T250D04 :	1262	T120D09 :	315	T180D09 :	717
T180D37 :	745	T150D47 :	549	T160D47 :	607	T160D09 :	570
T240D09 :	1187	T170D09 :	643	T250D09 :	1267	T150D37 :	539
T170D37 :	671	T160D37 :	598	T170D47 :	681	T280D09 :	1422
T270D09 :	1347	T100D42 :	218	T110D42 :	284	T110D51 :	293
T140D69 :	501	T160D13 :	574	T170D78 :	706	T250D78 :	1314
T280D78 :	1471	T270D78 :	1394	T140D01 :	437	T220D01 :	1023
T230D01 :	1101	T220D13 :	1034	T220D47 :	1055	T230D47 :	1133
T250D32 :	1283	T220D79 :	1079	T270D79 :	1395	T140D09 :	445
T190D09 :	791	T230D09 :	1109	T180D01 :	709	T230D51 :	1135
T180D42 :	750	T140D37 :	473	T240D13 :	1190	T160D04 :	565
T180D04 :	712	T170D04 :	638	T180D32 :	740	T240D32 :	1203
T240D04 :	1182						

GROUP: 22 90 MEMBR/S

T070D02 :	2	T070D68 :	55	T080D02 :	59	T090D59 :	170
T140D34 :	470	T150D10 :	512	T160D10 :	571	T130D10 :	381
T090D52 :	164	T270D28 :	1361	T270D67 :	1383	T110D02 :	244
T180D34 :	742	T150D22 :	524	T270D30 :	1362	T160D22 :	583
T250D62 :	1299	T270D62 :	1378	T270D65 :	1381	T170D22 :	656
T280D02 :	1415	T110D27 :	269	T270D27 :	1360	T280D55 :	1452
T250D55 :	1296	T27K4C :	1331	T24K4S :	1172	T27K4S :	1333

T25K4S :	1249	T28K4S :	1410	T27K1C2 :	1321	T09OD22 :	136
T10OD52 :	228	T28OD71 :	1464	T15OD34 :	536	T16OD34 :	595
T17OD10 :	644	T17OD34 :	668	T22OD10 :	1032	T25OD71 :	1307
T27OD71 :	1387	T27OD55 :	1375	T16OD55 :	615	T17OD55 :	689
T24OD55 :	1216	T27OD02 :	1341	T07OD28 :	28	T08OD22 :	79
T10OD22 :	198	T12OD10 :	316	T28K2R :	1403	T12OD34 :	339
T13OD34 :	405	T23OD10 :	1110	T24OD10 :	1188	T25OD10 :	1268
T28OD10 :	1423	T07OD10 :	10	T08OD10 :	67	T09OD10 :	124
T11OD10 :	252	T27OD10 :	1348	T10OD10 :	186	T10OD28 :	204
T11OD28 :	270	T17OD28 :	662	T25K1C2 :	1237	T16OD07 :	568
T17OD07 :	641	T27OD07 :	1345	T22OD07 :	1029	T24OD07 :	1185
T25OD07 :	1265	T23OD07 :	1107	T18OD07 :	715	T19OD07 :	789
T20OD07 :	870	T21OD07 :	948	T28OD07 :	1420	T07OD23 :	23
T08OD28 :	85	T09OD28 :	142	T20K2C2 :	846	T21K2C2 :	927
T22K2C2 :	1005	T23K2C2 :	1086	T24K2C2 :	1164	T25K2C2 :	1241
T27K2C2 :	1325	T28K2C2 :	1402				

GROUP: 23

204 MEMBR/S

T07OD06 :	6	T09OD06 :	120	T10OD06 :	182	T11OD06 :	248
T14OD06 :	442	T08OD06 :	63	T07OD30 :	30	T08OD30 :	87
T09OD30 :	144	T10OD30 :	206	T11OD30 :	272	T28OD06 :	1419
T28OD63 :	1456	T12OD30 :	335	T13OD30 :	401	T14OD30 :	466
T19OD30 :	806	T12OD67 :	368	T18OD67 :	771	T19OD67 :	829
T18OD30 :	738	T18OD62 :	767	T07OD34 :	34	T10OD67 :	239
T28OD65 :	1458	T28OD30 :	1438	T15OD06 :	508	T16OD06 :	567
T24OD06 :	1184	T15OD30 :	532	T16OD30 :	591	T17OD30 :	664
T23OD30 :	1124	T20OD30 :	887	T21OD30 :	965	T08OD67 :	111
T13OD67 :	434	T14OD67 :	499	T15OD67 :	559	T16OD67 :	623
T17OD67 :	697	T28OD67 :	1460	T09OD67 :	174	T11OD67 :	303
T17OD06 :	640	T27OD06 :	1344	T25OD06 :	1264	T17OD62 :	693
T28OD62 :	1455	T22OD30 :	1046	T24OD30 :	1202	T25OD30 :	1282
T14OD10 :	446	T20OD06 :	869	T22OD06 :	1028	T21OD06 :	947
T23OD06 :	1106	T12OD06 :	312	T18OD06 :	714	T19OD06 :	788
T13OD06 :	377	T07OD27 :	27	T13OD27 :	398	T18OD27 :	735
T14OD27 :	463	T19OD27 :	804	T20OD27 :	885	T21OD27 :	963
T27M1S :	1336	T08OD27 :	84	T09OD27 :	141	T10OD27 :	203
T11OD57 :	297	T16OD27 :	588	T25OD27 :	1280	T17OD27 :	661
T15OD27 :	529	T22OD27 :	1044	T23OD27 :	1122	T24OD27 :	1200
T09OD57 :	168	T28OD27 :	1436	T27OD63 :	1379	T10OD57 :	233
T13OD57 :	428	T14OD57 :	493	T12OD14 :	320	T12OD27 :	332
T12OD57 :	362	T07OD35 :	35	T11OD22 :	264	T07OD67 :	54
T10OD02 :	178	T11OD68 :	304	T10OD68 :	240	T09OD02 :	116
T09OD68 :	175	T10OD59 :	235	T11OD59 :	299	T14OD65 :	497
T15OD65 :	557	T16OD62 :	619	T16OD65 :	621	T17OD65 :	695
T25OD65 :	1301	T18OD10 :	718	T19OD10 :	792	T20OD10 :	873
T21OD10 :	951	T08OD68 :	112	T12OD59 :	364	T13OD59 :	430
T07OD65 :	52	T11OD65 :	301	T08OD65 :	109	T09OD65 :	172
T10OD65 :	237	T12OD65 :	366	T13OD65 :	432	T09OD55 :	166
T10OD55 :	231	T11OD55 :	295	T12OD55 :	360	T13OD55 :	426
T18OD55 :	763	T18OD65 :	769	T19OD65 :	827	T21OD65 :	986
T22OD62 :	1065	T23OD62 :	1143	T24OD62 :	1220	T20OD65 :	908
T22OD65 :	1067	T23OD65 :	1145	T24OD65 :	1222	T19OD62 :	825
T20OD62 :	906	T21OD62 :	984	T12OD22 :	327	T13OD22 :	393
T14OD22 :	458	T18OD22 :	730	T12OD02 :	308	T19OD02 :	784
T21OD68 :	989	T20OD68 :	911	T24OD68 :	1225	T14OD68 :	500
T15OD68 :	560	T22OD68 :	1070	T23OD68 :	1148	T18OD02 :	710
T17OD02 :	636	T20OD55 :	902	T21OD55 :	980	T24OD02 :	1180
T20M1S :	857	T22M1S :	1016	T23M1S :	1097	T24M1S :	1175
T13OD68 :	435	T14OD59 :	495	T24OD28 :	1201	T25OD28 :	1281
T25OD67 :	1303	T28OD68 :	1461	T14OD55 :	491	T16OD68 :	624
T17OD68 :	698	T25OD68 :	1304	T15OD55 :	555	T19OD55 :	821
T23OD55 :	1139	T22OD55 :	1061	T25OD02 :	1260	T27OD68 :	1384
T12OD68 :	369	T18OD68 :	772	T19OD68 :	830	T21OD28 :	964
T22OD28 :	1045	T23OD28 :	1123	T28OD28 :	1437	T19OD28 :	805
T20OD28 :	886	T20OD67 :	910	T21OD67 :	988	T23OD67 :	1147
T22OD67 :	1069	T24OD67 :	1224	T21M1S :	938	T25M1S :	1252
T12OD28 :	333	T13OD28 :	399	T14OD28 :	464	T20K4S :	854
T22K4S :	1013	T21K4S :	935	T23K4S :	1094	T19OD52 :	818
T20OD52 :	899	T21OD52 :	977	T14OD52 :	488	T15OD28 :	530

GROUP: 24 60 MEMBR/S

T07OD14 :	14	T24K4R :	1171	T25K4R :	1248	T27K4R :	1332
T28K4R :	1409	T28K4C :	1408	T08OD14 :	71	T09OD14 :	128
T28OD14 :	1427	T22K4C :	1011	T24K4C :	1170	T25K4C :	1247
T23K4C :	1092	T20K4C :	852	T21K4C :	933	T20K4R :	853
T21K4R :	934	T22K4R :	1012	T23K4R :	1093	T10OD14 :	190
T24OD14 :	1191	T25OD14 :	1271	T16OD14 :	575	T17OD14 :	648
T15OD14 :	516	T23OD14 :	1113	T22OD14 :	1035	T11OD14 :	256
T27OD14 :	1351	T13OD14 :	385	T19OD14 :	795	T14OD14 :	450
T21OD14 :	954	T20OD14 :	876	T18OD14 :	722	T20K1C2 :	842
T21K1C2 :	923	T22K1C2 :	1001	T23K1C2 :	1082	T24K1C2 :	1160
T28K1C2 :	1398	T20M1R :	856	T22M1R :	1015	T23M1R :	1096
T21M1R :	937	T24M1R :	1174	T27M1R :	1335	T25M1R :	1251
T16OD61 :	618	T22OD61 :	1064	T17OD61 :	692	T24OD61 :	1219
T25OD61 :	1298	T23OD61 :	1142	T28OD61 :	1454	T27OD61 :	1377
T18OD61 :	766	T20OD61 :	905	T21OD61 :	983	T19OD61 :	824

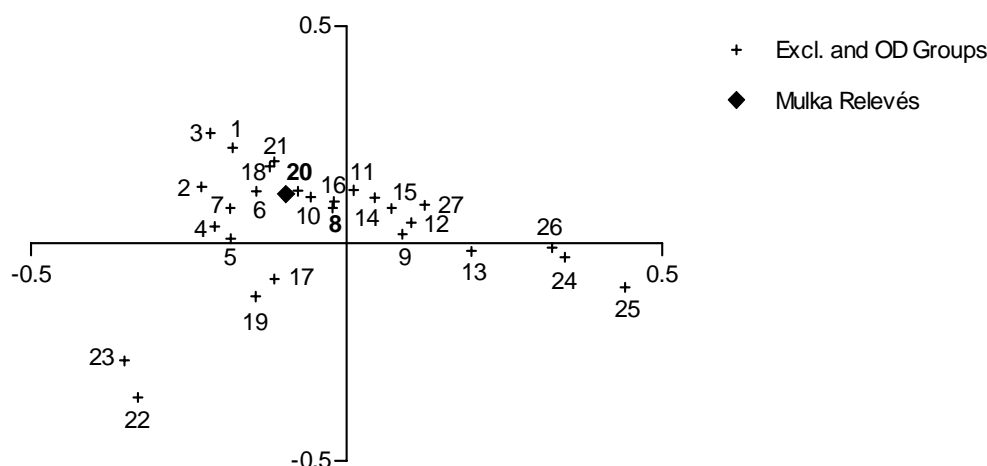
GROUP: 25 42 MEMBR/S

T08OD33 :	90	T23OD33 :	1126	T10OD33 :	209	T11OD33 :	275
T22OD33 :	1048	T24OD33 :	1204	T25OD33 :	1284	T27OD33 :	1364
T09OD33 :	147	T15OD33 :	535	T17OD33 :	667	T16OD33 :	594
T12OD33 :	338	T13OD33 :	404	T14OD33 :	469	T18OD33 :	741
T19OD33 :	808	T20OD33 :	889	T21OD33 :	967	T20K2C1 :	845
T20K2S :	848	T21K2C1 :	926	T21K2S :	929	T23K2S :	1088
T22K2S :	1007	T22K2C1 :	1004	T23K2C1 :	1085	T20K2R :	847
T21K2R :	928	T22K2R :	1006	T23K2R :	1087	T24K2R :	1165
T25K2R :	1242	T27K2R :	1326	T24K2C1 :	1163	T27K2C1 :	1324
T24K2S :	1166	T25K2S :	1243	T27K2S :	1327	T28K2C1 :	1401
T28K2S :	1404	T25K2C1 :	1240				

APPENDIX W SUPPORTING DATA FROM TWO NEW EXCLOSURE SITES

A new exclosure site on Mulka Station was monitored in August 1999 using recording and analysis methods identical to those used for other exclosure sites. Mulka Station is situated on the Birdsville Track, between the Dulkaninna and Cowarie sites (Figure 1.1). The new site is located on a dune and had been subject to very heavy cattle grazing pressure, much higher than was recorded at any of the exclosure sites during this study. Data from this site were included in a classification that is discussed below.

The dominant plant species at the new site was *Zygochloa paradoxa*, but with lower cover than was recorded at Olympic Dam Site 12. Despite this and the heavy grazing and trampling pressure, all quadrats had higher species richness values than the median value for the *Zygochloa paradoxa* site at Olympic Dam, with the median value at Mulka being 37% higher than the median value for Olympic Dam Site 12. An ordination carried out on these data, data from another new exclosure site at Clifton Hills Station and the other exclosure data from Chapter 4 places the Mulka relevés close to the group containing the Olympic Dam dune relevés with *Zygochloa paradoxa*, although the classification actually includes them in Group 8, with relevés from the Olympic Dam cover data Group 8 (Section 6.3.1.2). However, this group has much lower median cover and species richness values than the Olympic Dam group containing *Zygochloa paradoxa*, but also contains a majority of dune-base sites (Table 6.1). It seems unlikely that differences in landform alone can account for the differences discussed above, especially those relating to species richness.



Plot of the first two axes of a PCoA ordination of all the exclosure and Olympic Dam data with data from two new sites at Mulka and Clifton Hills.

The Mulka relevés are close to Group 20, which contains the Olympic Dam site with *Zygochloa paradoxa*, but are actually included in Group 8 in the classification. All Clifton Hills relevés are in Group 16 with the Cowarie relevés.

Even the single reading from the Mulka and Clifton Hills exclosure sites gave a median species richness of 12, despite the very heavy grazing and trampling by cattle at both sites prior to the monitoring. Additional and as yet un-analysed data from three of the Wilpoorinna, Dulkaninna and Mulka sites, collected in August 2000, has well above-mean values for all sites. The Dulkaninna site had a mean cover value of only 12%, but a mean species richness of 22. The two other sites had mean cover values of 42% and 31% and mean species richness values of 30 and 20.

COMBINED GROUP MEMBERSHIP, INCLUDING MULKA AND CLIFTON HILLS SITES

Mulka relevés are prefixed by T31M4, and Clifton Hills relevés by T31M5

GROUP :	1	53 MEMBR/S					
T070D01 :	1	T090D13 :	127	T130D64 :	431	T070D13 :	13
T090D32 :	146	T110D19 :	261	T110D46 :	288	T110D69 :	305
T080D08 :	65	T100D04 :	180	T100D46 :	222	T070D08 :	8
T100D15 :	191	T070D39 :	39	T110D45 :	287	T080D01 :	58
T110D44 :	286	T110D13 :	255	T140D64 :	496	T110D32 :	274
T110D08 :	250	T160D64 :	620	T080D32 :	89	T080D37 :	93
T070D03 :	3	T080D04 :	61	T070D22 :	22	T080D64 :	108
T110D54 :	294	T100D51 :	227	T140D54 :	490	T100D43 :	219
T070D50 :	49	T070D51 :	50	T100D54 :	230	T120D64 :	365
T120D41 :	346	T070D36 :	36	T070D04 :	4	T070D64 :	51
T110D04 :	246	T070D37 :	37	T070D09 :	9	T110D23 :	265
T070D42 :	42	T080D03 :	60	T070D21 :	21	T080D13 :	70
T110D43 :	285	T100D08 :	184	T100D32 :	208	T100D50 :	226
T090D04 :	118						

GROUP :	2	143 MEMBR/S					
T070D15 :	15	T070D32 :	32	T070D43 :	43	T070D44 :	44
T070D45 :	45	T070D18 :	18	T170D73 :	701	T170D74 :	702
T280D08 :	1421	T280D73 :	1466	T280D74 :	1467	T090D25 :	139
T170D25 :	659	T240D25 :	1198	T160D25 :	586	T270D25 :	1358
T110D15 :	257	T110D21 :	263	T110D25 :	267	T090D44 :	157
T240D44 :	1210	T240D51 :	1213	T250D25 :	1278	T250D42 :	1289
T270D42 :	1368	T270D51 :	1372	T250D44 :	1290	T250D51 :	1293
T270D44 :	1369	T190D77 :	837	T200D77 :	918	T220D77 :	1077
T210D77 :	996	T230D77 :	1155	T240D77 :	1232	T250D77 :	1313
T270D77 :	1393	T280D77 :	1470	T070D17 :	17	T080D17 :	74
T100D69 :	241	T120D69 :	370	T170D80 :	708	T120D40 :	345
T140D40 :	476	T130D40 :	411	T070D69 :	56	T080D69 :	113
T190D40 :	811	T100D13 :	189	T100D37 :	213	T170D77 :	705
T100D25 :	201	T100D44 :	220	T100D18 :	194	T110D18 :	260
T100D35 :	211	T110D35 :	277	T140D03 :	439	T180D40 :	748
T070D31 :	31	T080D31 :	88	T140D48 :	484	T080D40 :	96
T090D17 :	131	T100D48 :	224	T140D70 :	502	T100D70 :	242
T120D56 :	361	T240D48 :	1212	T230D53 :	1137	T240D53 :	1214
T100D31 :	207	T120D31 :	336	T100D40 :	216	T100D53 :	229
T240D60 :	1218	T120D48 :	353	T240D56 :	1217	T160D40 :	600
T240D40 :	1207	T160D56 :	616	T160D60 :	617	T160D66 :	622
T120D17 :	322	T160D17 :	578	T130D17 :	388	T140D17 :	453
T130D46 :	417	T180D46 :	754	T160D46 :	606	T240D54 :	1215
T160D54 :	614	T160D69 :	625	T170D69 :	699	T270D80 :	1396
T170D17 :	651	T170D54 :	688	T170D46 :	680	T180D17 :	725
T240D17 :	1194	T170D79 :	707	T180D79 :	781	T190D79 :	839
T090D18 :	132	T090D56 :	167	T270D64 :	1380	T100D03 :	179
T240D64 :	1221	T240D66 :	1223	T110D09 :	251	T280D01 :	1414
T280D13 :	1426	T100D56 :	232	T110D56 :	296	T170D64 :	694
T170D03 :	637	T170D70 :	700	T160D03 :	564	T240D03 :	1181
T160D29 :	590	T170D29 :	663	T180D03 :	711	T190D03 :	785
T200D03 :	866	T210D03 :	944	T070D46 :	46	T070D66 :	53
T070D47 :	47	T080D47 :	103	T090D46 :	159	T090D47 :	160
T090D66 :	173	T100D47 :	223	T110D47 :	289	T140D66 :	498
T100D66 :	238	T110D66 :	302	T120D66 :	367	T130D66 :	433
T150D66 :	558	T170D66 :	696	T240D47 :	1211		

GROUP :	3	41 MEMBR/S					
T070D29 :	29	T070D40 :	40	T070D38 :	38	T080D48 :	104
T090D54 :	165	T100D01 :	177	T110D31 :	273	T110D01 :	243
T110D48 :	290	T110D37 :	279	T110D03 :	245	T110D40 :	282
T110D17 :	259	T110D64 :	300	T170D40 :	674	T100D29 :	205
T140D53 :	489	T090D03 :	117	T090D69 :	176	T170D48 :	682
T080D09 :	66	T090D09 :	123	T100D09 :	185	T130D03 :	374
T090D08 :	122	T090D37 :	151	T180D29 :	737	T250D13 :	1270
T080D29 :	86	T120D29 :	334	T140D29 :	465	T280D17 :	1430

T07OD70 :	57	T15OD40 :	542	T09OD40 :	153	T08OD70 :	114
T09OD01 :	115	T11OD29 :	271	T18OD53 :	761	T09OD35 :	149
T17OD53 :	687						
GROUP :	4	42 MEMBR/S					
T07OD25 :	25	T08OD25 :	82	T08OD18 :	75	T19OD64 :	826
T28OD54 :	1451	T08OD43 :	99	T28OD04 :	1417	T28OD48 :	1448
T28OD64 :	1457	T18OD77 :	779	T18OD80 :	782	T18OD73 :	775
T18OD74 :	776	T08OD46 :	102	T08OD66 :	110	T20OD64 :	907
T28OD47 :	1447	T28OD66 :	1459	T28OD03 :	1416	T12OD03 :	309
T21OD64 :	985	T18OD64 :	768	T12OD39 :	344	T28OD25 :	1434
T28OD32 :	1439	T28OD51 :	1449	T28OD42 :	1445	T28OD44 :	1446
T28OD18 :	1431	T12OD04 :	310	T12OD13 :	319	T19OD54 :	820
T20OD54 :	901	T21OD54 :	979	T12OD46 :	351	T12OD47 :	352
T23OD54 :	1138	T28OD69 :	1462	T22OD54 :	1060	T12OD54 :	359
T13OD54 :	425	T18OD54 :	762				
GROUP :	5	26 MEMBR/S					
T11OD70 :	306	T27OD66 :	1382	T27OD56 :	1376	T27OD48 :	1371
T13OD29 :	400	T13OD31 :	402	T15OD17 :	519	T25OD01 :	1259
T15OD56 :	556	T22OD56 :	1062	T27OD17 :	1354	T25OD47 :	1291
T16OD79 :	633	T25OD17 :	1274	T27OD13 :	1350	T27OD54 :	1374
T17OD60 :	691	T22OD03 :	1025	T27OD08 :	1346	T16OD77 :	631
T27OD47 :	1370	T17OD56 :	690	T23OD56 :	1140	T27OD01 :	1340
T23OD60 :	1141	T23OD03 :	1103				
GROUP :	6	28 MEMBR/S					
T12OD53 :	358	T25OD66 :	1302	T16OD53 :	613	T28OD40 :	1443
T20OD53 :	900	T21OD40 :	970	T22OD40 :	1051	T13OD48 :	419
T19OD53 :	819	T20OD40 :	892	T18OD48 :	756	T23OD66 :	1146
T22OD66 :	1068	T25OD48 :	1292	T25OD56 :	1297	T25OD64 :	1300
T25OD54 :	1295	T18OD66 :	770	T19OD66 :	828	T20OD66 :	909
T21OD66 :	987	T13OD53 :	424	T23OD40 :	1129	T25OD40 :	1287
T21OD53 :	978	T22OD53 :	1059	T25OD53 :	1294	T27OD70 :	1386
GROUP :	7	32 MEMBR/S					
T13OD56 :	427	T23OD48 :	1134	T24OD70 :	1227	T25OD70 :	1306
T27OD53 :	1373	T18OD70 :	774	T19OD70 :	832	T28OD56 :	1453
T16OD48 :	608	T18OD56 :	764	T18OD60 :	765	T16OD70 :	626
T19OD48 :	816	T19OD60 :	823	T21OD60 :	982	T21OD48 :	975
T22OD48 :	1056	T22OD60 :	1063	T21OD56 :	981	T14OD56 :	492
T20OD48 :	897	T19OD56 :	822	T20OD56 :	903	T20OD60 :	904
T22OD70 :	1072	T28OD53 :	1450	T23OD64 :	1144	T20OD70 :	913
T23OD70 :	1150	T21OD70 :	991	T22OD64 :	1066	T28OD70 :	1463
GROUP :	8	60 MEMBR/S					
T07OD05 :	5	T16OD05 :	566	T08OD05 :	62	T09OD05 :	119
T10OD05 :	181	T24OD05 :	1183	T08OD38 :	94	T07OD07 :	7
T09OD07 :	121	T12OD05 :	311	T13OD05 :	376	T19OD05 :	787
T18OD05 :	713	T14OD05 :	441	T20OD05 :	868	T22OD05 :	1027
T21OD05 :	946	T23OD05 :	1105	T28OD05 :	1418	T07OD24 :	24
T10OD24 :	200	T11OD24 :	266	T12OD08 :	314	T13OD08 :	379
T14OD08 :	444	T08OD07 :	64	T10OD07 :	183	T11OD07 :	249
T09OD24 :	138	T15OD07 :	509	T12OD07 :	313	T07OD41 :	41
T08OD41 :	97	T09OD29 :	143	T09OD31 :	145	T25OD03 :	1261
T27OD03 :	1342	T11OD05 :	247	T12OD70 :	371	T15OD29 :	531
T28OD33 :	1440	T31M4C :	1491	T31M4S :	1493	T31M4R :	1492
T15OD19 :	521	T15OD23 :	525	T15OD43 :	545	T15OD36 :	538
T10OD38 :	214	T11OD38 :	280	T17OD38 :	672	T15OD38 :	540
T17OD05 :	639	T25OD05 :	1263	T12OD38 :	343	T13OD38 :	409
T14OD38 :	474	T18OD38 :	746	T17OD35 :	669	T17OD39 :	673
GROUP :	9	18 MEMBR/S					
T12OD52 :	357	T13OD52 :	423	T18OD28 :	736	T18OD52 :	760
T29K4S :	1487	T29K2C2 :	1479	T29K1C2 :	1475	T29K4C :	1485

T29K4R :	1486	T29K2C1 :	1478	T29K2R :	1480	T29K2S :	1481
T29K1C1 :	1474	T29K1S :	1477	T29K1R :	1476	T29K3C :	1482
T29K3R :	1483	T29K3S :	1484				
GROUP :	10	68 MEMBR/S					
T07OD19 :	19	T28OD26 :	1435	T100D17 :	193	T100D19 :	195
T100D21 :	197	T08OD19 :	76	T17OD21 :	655	T13OD19 :	390
T16OD19 :	580	T13OD21 :	392	T16OD21 :	582	T17OD20 :	654
T08OD21 :	78	T12OD19 :	324	T18OD21 :	729	T12OD21 :	326
T12OD20 :	325	T13OD20 :	391	T14OD20 :	456	T16OD20 :	581
T18OD20 :	728	T18OD19 :	727	T20OD19 :	881	T22OD19 :	1040
T21OD19 :	959	T23OD19 :	1118	T19OD19 :	800	T12OD37 :	342
T13OD37 :	408	T27OD18 :	1355	T24OD18 :	1195	T07OD20 :	20
T100D20 :	196	T11OD20 :	262	T100D23 :	199	T08OD20 :	77
T09OD20 :	134	T11OD26 :	268	T07OD26 :	26	T08OD23 :	80
T09OD23 :	137	T08OD26 :	83	T09OD26 :	140	T100D26 :	202
T19OD75 :	835	T23OD75 :	1153	T20OD75 :	916	T22OD75 :	1075
T21OD75 :	994	T24OD75 :	1230	T25OD75 :	1311	T08OD34 :	91
T09OD34 :	148	T08OD39 :	95	T100D39 :	215	T13OD39 :	410
T14OD39 :	475	T09OD39 :	152	T11OD39 :	281	T12OD35 :	340
T13OD35 :	406	T14OD35 :	471	T17OD75 :	703	T28OD75 :	1468
T28OD76 :	1469	T18OD75 :	777	T28OD19 :	1432	T28OD23 :	1433
GROUP :	11	38 MEMBR/S					
T09OD19 :	133	T16OD75 :	629	T15OD05 :	507	T16OD73 :	627
T16OD74 :	628	T27OD19 :	1356	T27OD23 :	1357	T27OD75 :	1391
T27OD76 :	1392	T100D34 :	210	T11OD34 :	276	T15OD39 :	541
T16OD39 :	599	T16OD28 :	589	T18OD39 :	747	T15OD03 :	505
T15OD35 :	537	T16OD35 :	596	T15OD52 :	553	T23OD52 :	1136
T16OD52 :	612	T17OD52 :	686	T22OD52 :	1058	T09OD64 :	171
T100D64 :	236	T28OD72 :	1465	T25OD72 :	1308	T27OD72 :	1388
T27OD35 :	1365	T18OD35 :	743	T19OD35 :	809	T20OD35 :	890
T21OD35 :	968	T22OD35 :	1049	T24OD35 :	1205	T25OD35 :	1285
T28OD35 :	1441	T23OD35 :	1127				
GROUP :	12	84 MEMBR/S					
T12OD26 :	331	T13OD26 :	397	T14OD26 :	462	T15OD26 :	528
T19OD26 :	803	T20OD26 :	884	T21OD26 :	962	T18OD26 :	734
T22OD26 :	1043	T23OD26 :	1121	T24OD26 :	1199	T27OD26 :	1359
T25OD26 :	1279	T14OD19 :	455	T14OD21 :	457	T15OD21 :	523
T24OD19 :	1196	T25OD19 :	1276	T17OD19 :	653	T16OD26 :	587
T17OD26 :	660	T27OD73 :	1389	T27OD74 :	1390	T15OD20 :	522
T25OD23 :	1277	T17OD23 :	657	T24OD23 :	1197	T24OD76 :	1231
T25OD76 :	1312	T20M1C :	855	T23M1C :	1095	T22M1C :	1014
T24M1C :	1173	T21M1C :	936	T25M1C :	1250	T27M1C :	1334
T15OD18 :	520	T24K3S :	1169	T22K1C1 :	1000	T22K1S :	1003
T22K3C :	1008	T22K3S :	1010	T20K1C1 :	841	T20K1S :	844
T15OD24 :	526	T16OD24 :	585	T17OD24 :	658	T16OD23 :	584
T20K3C :	849	T21K3C :	930	T21K3S :	932	T20K3S :	851
T20K1R :	843	T21K1R :	924	T25K3S :	1246	T27K3S :	1330
T24K3R :	1168	T25K3R :	1245	T27K3R :	1329	T23K3C :	1089
T24K3C :	1167	T21K1C1 :	922	T23K1C1 :	1081	T24K1C1 :	1159
T22K1R :	1002	T23K1R :	1083	T21K1S :	925	T23K1S :	1084
T24K1S :	1162	T24K1R :	1161	T27K1R :	1322	T25K1R :	1238
T28K1R :	1399	T25K1C1 :	1236	T27K1C1 :	1320	T25K3C :	1244
T27K3C :	1328	T25K1S :	1239	T27K1S :	1323	T28K1S :	1400
T28K1C1 :	1397	T28K3C :	1405	T28K3R :	1406	T28K3S :	1407
GROUP :	13	24 MEMBR/S					
T13OD02 :	373	T20OD02 :	865	T15OD02 :	504	T23OD02 :	1102
T16OD02 :	563	T22OD02 :	1024	T14OD02 :	438	T21OD02 :	943
T13OD23 :	394	T19OD23 :	801	T18OD23 :	731	T23OD76 :	1154
T20OD23 :	882	T21OD23 :	960	T22OD23 :	1041	T23OD23 :	1119
T14OD23 :	459	T20OD76 :	917	T21OD76 :	995	T16OD76 :	630
T17OD76 :	704	T19OD76 :	836	T18OD76 :	778	T22K3R :	1009
GROUP :	14	23 MEMBR/S					

T07OD11 :	11	T08OD11 :	68	T09OD11 :	125	T10OD11 :	187
T18OD11 :	719	T19OD11 :	793	T11OD11 :	253	T28OD11 :	1424
T07OD33 :	33	T28OD12 :	1425	T12OD11 :	317	T13OD11 :	382
T20OD11 :	874	T21OD11 :	952	T22OD11 :	1033	T23OD11 :	1111
T14OD11 :	447	T15OD11 :	513	T16OD11 :	572	T17OD11 :	645
T24OD11 :	1189	T25OD11 :	1269	T27OD11 :	1349		
GROUP :	15	26 MEMBR/S					
T20M2C :	858	T22M2C :	1017	T23M2C :	1098	T21M2C :	939
T25M2C :	1253	T24M2C :	1176	T27M2C :	1337	T26M2C :	1317
T29M2C :	1488	T20M2S :	860	T22M2S :	1019	T23M2S :	1100
T24M2S :	1178	T26M2S :	1319	T27M2S :	1339	T29M2S :	1490
T21M2S :	941	T25M2S :	1255	T20M2R :	859	T27M2R :	1338
T22M2R :	1018	T23M2R :	1099	T24M2R :	1177	T21M2R :	940
T26M2R :	1318	T25M2R :	1254				
GROUP :	16	18 MEMBR/S					
T20M3C :	861	T25M3R :	1257	T25M3C :	1256	T28M3C :	1411
T20M3R :	862	T20M3S :	863	T25M3S :	1258	T28M3S :	1413
T28M3R :	1412	T22M3C :	1020	T22M3R :	1021	T22M3S :	1022
T31M5C1 :	1494	T31M5C2 :	1495	T31M5R1 :	1496	T31M5R2 :	1497
T31M5S1 :	1498	T31M5S2 :	1499				
GROUP :	17	47 MEMBR/S					
T08OD24 :	81	T12OD24 :	329	T13OD24 :	395	T14OD24 :	460
T18OD24 :	732	T13OD07 :	378	T14OD07 :	443	T12OD18 :	323
T12OD43 :	348	T13OD18 :	389	T18OD18 :	726	T19OD18 :	799
T21OD18 :	958	T22OD18 :	1039	T23OD18 :	1117	T13OD43 :	414
T18OD43 :	751	T14OD18 :	454	T14OD43 :	479	T15OD69 :	561
T12OD23 :	328	T22OD76 :	1076	T16OD18 :	579	T17OD18 :	652
T17OD43 :	677	T25OD18 :	1275	T16OD43 :	603	T08OD36 :	92
T10OD36 :	212	T09OD36 :	150	T11OD36 :	278	T24OD36 :	1206
T27OD36 :	1366	T25OD36 :	1286	T28OD36 :	1442	T12OD36 :	341
T13OD36 :	407	T20OD36 :	891	T20OD18 :	880	T18OD36 :	744
T19OD36 :	810	T14OD36 :	472	T22OD36 :	1050	T16OD36 :	597
T17OD36 :	670	T21OD36 :	969	T23OD36 :	1128		
GROUP :	18	12 MEMBR/S					
T07OD49 :	48	T08OD49 :	105	T10OD49 :	225	T09OD49 :	161
T17OD49 :	683	T11OD49 :	291	T16OD49 :	609	T13OD49 :	420
T14OD49 :	485	T18OD49 :	757	T15OD49 :	550	T12OD49 :	354
GROUP :	19	90 MEMBR/S					
T08OD15 :	72	T18OD15 :	723	T16OD15 :	576	T22OD15 :	1036
T23OD15 :	1114	T19OD15 :	796	T20OD15 :	877	T21OD15 :	955
T09OD43 :	156	T17OD15 :	649	T25OD15 :	1272	T27OD15 :	1352
T24OD15 :	1192	T28OD15 :	1428	T08OD44 :	100	T13OD09 :	380
T19OD74 :	834	T18OD44 :	752	T19OD44 :	814	T08OD45 :	101
T17OD50 :	684	T24OD08 :	1186	T09OD45 :	158	T15OD25 :	527
T22OD09 :	1031	T18OD25 :	733	T22OD25 :	1042	T25OD73 :	1309
T10OD45 :	221	T18OD45 :	753	T19OD73 :	833	T20OD74 :	915
T21OD74 :	993	T22OD74 :	1074	T23OD74 :	1152	T24OD74 :	1229
T25OD74 :	1310	T08OD50 :	106	T09OD50 :	162	T18OD50 :	758
T16OD44 :	604	T22OD44 :	1054	T16OD08 :	569	T17OD08 :	642
T23OD44 :	1132	T25OD08 :	1266	T09OD15 :	129	T17OD45 :	679
T11OD50 :	292	T23OD25 :	1120	T12OD25 :	330	T13OD25 :	396
T12OD44 :	349	T13OD44 :	415	T20OD08 :	871	T21OD08 :	949
T22OD08 :	1030	T23OD08 :	1108	T14OD44 :	480	T19OD08 :	790
T13OD42 :	413	T20OD44 :	895	T18OD08 :	716	T15OD44 :	546
T21OD44 :	973	T15OD08 :	510	T12OD15 :	321	T13OD15 :	386
T12OD45 :	350	T14OD50 :	486	T12OD50 :	355	T13OD50 :	421
T15OD50 :	551	T16OD50 :	610	T20OD25 :	883	T21OD25 :	961
T14OD15 :	451	T14OD45 :	481	T13OD45 :	416	T15OD15 :	517
T15OD45 :	547	T16OD45 :	605	T19OD25 :	802	T14OD25 :	461
T21OD73 :	992	T22OD73 :	1073	T23OD73 :	1151	T24OD73 :	1228

T29M2R :	1489	T200D73 :	914				
GROUP :	20	12 MEMBR/S					
T070D12 :	12	T080D12 :	69	T090D12 :	126	T130D12 :	383
T120D12 :	318	T100D12 :	188	T150D12 :	514	T160D12 :	573
T170D12 :	646	T110D12 :	254	T180D12 :	720	T140D12 :	448
GROUP :	21	49 MEMBR/S					
T070D16 :	16	T280D16 :	1429	T080D16 :	73	T100D16 :	192
T110D16 :	258	T110D41 :	283	T180D31 :	739	T090D58 :	169
T130D41 :	412	T140D41 :	477	T160D41 :	601	T150D41 :	543
T100D58 :	234	T140D58 :	494	T130D58 :	429	T170D31 :	665
T110D58 :	298	T140D31 :	467	T160D31 :	592	T150D31 :	533
T120D58 :	363	T090D16 :	130	T150D16 :	518	T160D16 :	577
T170D16 :	650	T220D16 :	1037	T270D16 :	1353	T230D16 :	1115
T270D41 :	1367	T240D16 :	1193	T250D16 :	1273	T220D41 :	1052
T250D41 :	1288	T130D16 :	387	T200D16 :	878	T180D16 :	724
T190D16 :	797	T170D41 :	675	T240D41 :	1208	T180D41 :	749
T280D41 :	1444	T090D41 :	154	T100D41 :	217	T210D16 :	956
T140D16 :	452	T200D41 :	893	T210D41 :	971	T230D41 :	1130
T190D41 :	812						
GROUP :	22	96 MEMBR/S					
T080D42 :	98	T220D80 :	1080	T120D32 :	337	T200D80 :	921
T230D80 :	1158	T210D80 :	999	T190D80 :	840	T130D47 :	418
T140D47 :	483	T20K3R :	850	T21K3R :	931	T23K3R :	1090
T23K3S :	1091	T090D42 :	155	T170D32 :	666	T140D13 :	449
T150D13 :	515	T220D78 :	1078	T170D51 :	685	T130D32 :	403
T160D32 :	593	T140D46 :	482	T090D51 :	163	T180D13 :	721
T180D47 :	755	T180D78 :	780	T210D78 :	997	T190D01 :	783
T200D01 :	864	T210D01 :	942	T220D42 :	1053	T230D42 :	1131
T150D54 :	554	T180D69 :	773	T190D78 :	838	T280D80 :	1473
T200D78 :	919	T240D69 :	1226	T230D78 :	1156	T240D80 :	1235
T250D80 :	1316	T230D79 :	1157	T250D79 :	1315	T280D79 :	1472
T240D78 :	1233	T240D79 :	1234	T200D79 :	920	T210D79 :	998
T120D42 :	347	T150D32 :	534	T230D32 :	1125	T210D42 :	972
T140D32 :	468	T160D42 :	602	T210D13 :	953	T130D13 :	384
T200D13 :	875	T190D13 :	794	T190D47 :	815	T200D47 :	896
T200D04 :	867	T190D32 :	807	T210D04 :	945	T190D42 :	813
T150D04 :	506	T210D09 :	950	T220D51 :	1057	T150D42 :	544
T200D32 :	888	T200D09 :	872	T210D47 :	974	T210D32 :	966
T220D32 :	1047	T210D51 :	976	T190D69 :	831	T210D69 :	990
T200D69 :	912	T220D69 :	1071	T230D69 :	1149	T180D51 :	759
T190D51 :	817	T080D51 :	107	T130D04 :	375	T140D04 :	440
T190D04 :	786	T230D04 :	1104	T220D04 :	1026	T230D13 :	1112
T120D51 :	356	T130D51 :	422	T140D51 :	487	T150D51 :	552
T140D42 :	478	T160D51 :	611	T200D51 :	898	T200D42 :	894
GROUP :	23	73 MEMBR/S					
T090D21 :	135	T170D44 :	678	T160D78 :	632	T160D80 :	634
T270D04 :	1343	T270D32 :	1363	T120D01 :	307	T170D42 :	676
T150D01 :	503	T170D01 :	635	T170D13 :	647	T130D01 :	372
T240D01 :	1179	T160D01 :	562	T150D09 :	511	T240D42 :	1209
T150D46 :	548	T190D17 :	798	T200D17 :	879	T230D17 :	1116
T220D17 :	1038	T210D17 :	957	T130D69 :	436	T250D69 :	1305
T270D69 :	1385	T250D04 :	1262	T120D09 :	315	T180D09 :	717
T180D37 :	745	T150D47 :	549	T160D47 :	607	T160D09 :	570
T240D09 :	1187	T170D09 :	643	T250D09 :	1267	T150D37 :	539
T170D37 :	671	T160D37 :	598	T170D47 :	681	T280D09 :	1422
T270D09 :	1347	T100D42 :	218	T110D42 :	284	T110D51 :	293
T140D69 :	501	T160D13 :	574	T170D78 :	706	T250D78 :	1314
T280D78 :	1471	T270D78 :	1394	T140D01 :	437	T220D01 :	1023
T230D01 :	1101	T220D13 :	1034	T220D47 :	1055	T230D47 :	1133
T250D32 :	1283	T220D79 :	1079	T270D79 :	1395	T140D09 :	445
T190D09 :	791	T230D09 :	1109	T180D01 :	709	T230D51 :	1135
T180D42 :	750	T140D37 :	473	T240D13 :	1190	T160D04 :	565
T180D04 :	712	T170D04 :	638	T180D32 :	740	T240D32 :	1203

T24OD04 : 1182

GROUP: 24 90 MEMBR/S

T07OD02 : 2	T07OD68 : 55	T08OD02 : 59	T09OD59 : 170
T14OD34 : 470	T15OD10 : 512	T16OD10 : 571	T13OD10 : 381
T09OD52 : 164	T27OD28 : 1361	T27OD67 : 1383	T11OD02 : 244
T18OD34 : 742	T15OD22 : 524	T27OD30 : 1362	T16OD22 : 583
T25OD62 : 1299	T27OD62 : 1378	T27OD65 : 1381	T17OD22 : 656
T28OD02 : 1415	T11OD27 : 269	T27OD27 : 1360	T28OD55 : 1452
T25OD55 : 1296	T27K4C : 1331	T24K4S : 1172	T27K4S : 1333
T25K4S : 1249	T28K4S : 1410	T27K1C2 : 1321	T09OD22 : 136
T10OD52 : 228	T28OD71 : 1464	T15OD34 : 536	T16OD34 : 595
T17OD10 : 644	T17OD34 : 668	T22OD10 : 1032	T25OD71 : 1307
T27OD71 : 1387	T27OD55 : 1375	T16OD55 : 615	T17OD55 : 689
T24OD55 : 1216	T27OD02 : 1341	T07OD28 : 28	T08OD22 : 79
T10OD22 : 198	T12OD10 : 316	T28K2R : 1403	T12OD34 : 339
T13OD34 : 405	T23OD10 : 1110	T24OD10 : 1188	T25OD10 : 1268
T28OD10 : 1423	T07OD10 : 10	T08OD10 : 67	T09OD10 : 124
T11OD10 : 252	T27OD10 : 1348	T10OD10 : 186	T10OD28 : 204
T11OD28 : 270	T17OD28 : 662	T25K1C2 : 1237	T16OD07 : 568
T17OD07 : 641	T27OD07 : 1345	T22OD07 : 1029	T24OD07 : 1185
T25OD07 : 1265	T23OD07 : 1107	T18OD07 : 715	T19OD07 : 789
T20OD07 : 870	T21OD07 : 948	T28OD07 : 1420	T07OD23 : 23
T08OD28 : 85	T09OD28 : 142	T20K2C2 : 846	T21K2C2 : 927
T22K2C2 : 1005	T23K2C2 : 1086	T24K2C2 : 1164	T25K2C2 : 1241
T27K2C2 : 1325	T28K2C2 : 1402		

GROUP: 25 204 MEMBR/S

T07OD06 : 6	T09OD06 : 120	T10OD06 : 182	T11OD06 : 248
T14OD06 : 442	T08OD06 : 63	T07OD30 : 30	T08OD30 : 87
T09OD30 : 144	T10OD30 : 206	T11OD30 : 272	T28OD06 : 1419
T28OD63 : 1456	T12OD30 : 335	T13OD30 : 401	T14OD30 : 466
T19OD30 : 806	T12OD67 : 368	T18OD67 : 771	T19OD67 : 829
T18OD30 : 738	T18OD62 : 767	T07OD34 : 34	T10OD67 : 239
T28OD65 : 1458	T28OD30 : 1438	T15OD06 : 508	T16OD06 : 567
T24OD06 : 1184	T15OD30 : 532	T16OD30 : 591	T17OD30 : 664
T23OD30 : 1124	T20OD30 : 887	T21OD30 : 965	T08OD67 : 111
T13OD67 : 434	T14OD67 : 499	T15OD67 : 559	T16OD67 : 623
T17OD67 : 697	T28OD67 : 1460	T09OD67 : 174	T11OD67 : 303
T17OD06 : 640	T27OD06 : 1344	T25OD06 : 1264	T17OD62 : 693
T28OD62 : 1455	T22OD30 : 1046	T24OD30 : 1202	T25OD30 : 1282
T14OD10 : 446	T20OD06 : 869	T22OD06 : 1028	T21OD06 : 947
T23OD06 : 1106	T12OD06 : 312	T18OD06 : 714	T19OD06 : 788
T13OD06 : 377	T07OD27 : 27	T13OD27 : 398	T18OD27 : 735
T14OD27 : 463	T19OD27 : 804	T20OD27 : 885	T21OD27 : 963
T27M1S : 1336	T08OD27 : 84	T09OD27 : 141	T10OD27 : 203
T11OD57 : 297	T16OD27 : 588	T25OD27 : 1280	T17OD27 : 661
T15OD27 : 529	T22OD27 : 1044	T23OD27 : 1122	T24OD27 : 1200
T09OD57 : 168	T28OD27 : 1436	T27OD63 : 1379	T10OD57 : 233
T13OD57 : 428	T14OD57 : 493	T12OD14 : 320	T12OD27 : 332
T12OD57 : 362	T07OD35 : 35	T11OD22 : 264	T07OD67 : 54
T10OD02 : 178	T11OD68 : 304	T10OD68 : 240	T09OD02 : 116
T09OD68 : 175	T10OD59 : 235	T11OD59 : 299	T14OD65 : 497
T15OD65 : 557	T16OD62 : 619	T16OD65 : 621	T17OD65 : 695
T25OD65 : 1301	T18OD10 : 718	T19OD10 : 792	T20OD10 : 873
T21OD10 : 951	T08OD68 : 112	T12OD59 : 364	T13OD59 : 430
T07OD65 : 52	T11OD65 : 301	T08OD65 : 109	T09OD65 : 172
T10OD65 : 237	T12OD65 : 366	T13OD65 : 432	T09OD55 : 166
T10OD55 : 231	T11OD55 : 295	T12OD55 : 360	T13OD55 : 426
T18OD55 : 763	T18OD65 : 769	T19OD65 : 827	T21OD65 : 986
T22OD62 : 1065	T23OD62 : 1143	T24OD62 : 1220	T20OD65 : 908
T22OD65 : 1067	T23OD65 : 1145	T24OD65 : 1222	T19OD62 : 825
T20OD62 : 906	T21OD62 : 984	T12OD22 : 327	T13OD22 : 393
T14OD22 : 458	T18OD22 : 730	T12OD02 : 308	T19OD02 : 784
T21OD68 : 989	T20OD68 : 911	T24OD68 : 1225	T14OD68 : 500
T15OD68 : 560	T22OD68 : 1070	T23OD68 : 1148	T18OD02 : 710
T17OD02 : 636	T20OD55 : 902	T21OD55 : 980	T24OD02 : 1180
T20M1S : 857	T22M1S : 1016	T23M1S : 1097	T24M1S : 1175
T13OD68 : 435	T14OD59 : 495	T24OD28 : 1201	T25OD28 : 1281

T25OD67 :	1303	T28OD68 :	1461	T14OD55 :	491	T16OD68 :	624
T17OD68 :	698	T25OD68 :	1304	T15OD55 :	555	T19OD55 :	821
T23OD55 :	1139	T22OD55 :	1061	T25OD02 :	1260	T27OD68 :	1384
T12OD68 :	369	T18OD68 :	772	T19OD68 :	830	T21OD28 :	964
T22OD28 :	1045	T23OD28 :	1123	T28OD28 :	1437	T19OD28 :	805
T20OD28 :	886	T20OD67 :	910	T21OD67 :	988	T23OD67 :	1147
T22OD67 :	1069	T24OD67 :	1224	T21M1S :	938	T25M1S :	1252
T12OD28 :	333	T13OD28 :	399	T14OD28 :	464	T20K4S :	854
T22K4S :	1013	T21K4S :	935	T23K4S :	1094	T19OD52 :	818
T20OD52 :	899	T21OD52 :	977	T14OD52 :	488	T15OD28 :	530

GROUP: 26

60 MEMBR/S

T07OD14 :	14	T24K4R :	1171	T25K4R :	1248	T27K4R :	1332
T28K4R :	1409	T28K4C :	1408	T08OD14 :	71	T09OD14 :	128
T28OD14 :	1427	T22K4C :	1011	T24K4C :	1170	T25K4C :	1247
T23K4C :	1092	T20K4C :	852	T21K4C :	933	T20K4R :	853
T21K4R :	934	T22K4R :	1012	T23K4R :	1093	T10OD14 :	190
T24OD14 :	1191	T25OD14 :	1271	T16OD14 :	575	T17OD14 :	648
T15OD14 :	516	T23OD14 :	1113	T22OD14 :	1035	T11OD14 :	256
T27OD14 :	1351	T13OD14 :	385	T19OD14 :	795	T14OD14 :	450
T21OD14 :	954	T20OD14 :	876	T18OD14 :	722	T20K1C2 :	842
T21K1C2 :	923	T22K1C2 :	1001	T23K1C2 :	1082	T24K1C2 :	1160
T28K1C2 :	1398	T20M1R :	856	T22M1R :	1015	T23M1R :	1096
T21M1R :	937	T24M1R :	1174	T27M1R :	1335	T25M1R :	1251
T16OD61 :	618	T22OD61 :	1064	T17OD61 :	692	T24OD61 :	1219
T25OD61 :	1298	T23OD61 :	1142	T28OD61 :	1454	T27OD61 :	1377
T18OD61 :	766	T20OD61 :	905	T21OD61 :	983	T19OD61 :	824

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42 MEMBR/S

T08OD33 :	90	T23OD33 :	1126	T10OD33 :	209	T11OD33 :	275
T22OD33 :	1048	T24OD33 :	1204	T25OD33 :	1284	T27OD33 :	1364
T09OD33 :	147	T15OD33 :	535	T17OD33 :	667	T16OD33 :	594
T12OD33 :	338	T13OD33 :	404	T14OD33 :	469	T18OD33 :	741
T19OD33 :	808	T20OD33 :	889	T21OD33 :	967	T20K2C1 :	845
T20K2S :	848	T21K2C1 :	926	T21K2S :	929	T23K2S :	1088
T22K2S :	1007	T22K2C1 :	1004	T23K2C1 :	1085	T20K2R :	847
T21K2R :	928	T22K2R :	1006	T23K2R :	1087	T24K2R :	1165
T25K2R :	1242	T27K2R :	1326	T24K2C1 :	1163	T27K2C1 :	1324
T24K2S :	1166	T25K2S :	1243	T27K2S :	1327	T28K2C1 :	1401
T28K2S :	1404	T25K2C1 :	1240				