

**Aquatic invertebrate assemblages of wetlands and rivers  
in the wheatbelt region of Western Australia**

**A.M. Pinder, S.A. Halse, J.M. McRae and R.J. Shiel**

Appendix 1: Descriptions of wetlands sampled

Appendix 2: Water chemistry data

Appendix 3: Full aquatic invertebrate dataset

Appendix 4: Wetland classification dendrogram

Appendix 5: Table of species and codes

**Appendix 1.** List of wetlands sampled during the monitoring (SPM...) and survey (SPS ...) projects. Land status: DCLM (managed by Department of Conservation and Land Management; UCL (unallocated crown land), UCR (unvested crown reserve), CR (crown reserve), CRLG (crown reserve vested in local government). NR = nature reserve. The names of many wetlands are unofficial.

Site code	Wetland name	Land tenure	Wetland type	Date sampled	Latitude	Longitude
SPM001	Lake Bryde	DCLM	Lake with <i>Muehlenbeckia/Tecticornia</i> on bed	03/10/1997	33.355	118.823
SPM002	Lake Logue	DCLM	open lake with <i>Casuarina/Melaleuca</i> fringe	27/10/1999	29.841	115.129
SPM003	Lake Towerinning	DCLM/Freehold	open lake with <i>Melaleuca/Eucalyptus rudis</i> fringe	03/10/1997	33.578	116.776
SPM004	Lake Coyrecup	DCLM	open lake with dead tree and samphire fringe	25/10/1997	33.721	117.831
SPM005	Lake Wheatfield	DCLM	open lake with <i>Melaleuca/Baumea</i> fringe	17/11/1997	33.809	121.922
SPM006	Lake Altham	DCLM	saline playa	04/11/1998	33.408	118.445
SPM007	Lake Noobijup	DCLM	sedge swamp	06/11/1998	34.398	116.790
SPM008	Bennett's Lake	DCLM	Saline playa with <i>Melaleuca</i> fringe	04/11/1998	33.281	119.601
SPM009	Ardath Lake	Freehold	saline playa with <i>Melaleuca</i> fringe	10/11/1998	32.098	118.152
SPM010	Lake View	Freehold	open lake with partly dead <i>Melaleuca/Casuarina</i> fringe	12/11/1998	30.591	115.968
SPM011	Lake Kulicup	DCLM	sedge swamp	06/11/1998	33.827	116.670
SPM012	Lake Champion	DCLM	saline playa	10/11/1998	31.141	118.337
SPM013	Goonaping Swamp	DCLM	low <i>Melaleuca</i> shrub swamp	09/11/1998	32.151	116.596
SPM014	Lake Coomelberrup	DCLM	open lake with dead tree and samphire fringe	05/11/1998	33.408	117.778
SPM015	Walymouring Lake	DCLM	open lake with dead tree and samphire fringe	11/11/1998	31.153	116.869
SPM016	Lake Eganu	DCLM	swamp with dead trees on bed	12/11/1998	30.002	115.866
SPM017	Maisey's Lake	Freehold	<i>Melaleuca</i> swamp with <i>Eragrostis</i> on bed	26/10/1999	31.251	117.069
SPM019	Swamp in Paperbark NR	DCLM	<i>Melaleuca</i> and Yate ( <i>Eucalyptus occidentalis</i> ) swamp	25/10/1999	32.415	118.097
SPM020	Lake Coomalbidgup	UCL	open lake with samphire and dead tree fringe	19/10/1999	33.715	121.364
SPM022	Yaalup Swamp	DCLM	Yate swamp	23/10/1999	33.754	118.590
SPM023	Lake Parkeyerring	DCLM/Freehold	open lake with <i>Casuarina/Melaleuca/samphire</i> fringe	25/10/1999	33.359	117.348
SPM024	Lake Pleasant View	DCLM	sedge swamp	24/10/1999	34.820	118.180
SPM025	Lake Ronnerup	DCLM	saline playa	20/10/1999	33.254	119.617
SPS001	Yenyenning Lakes	DCLM	saline playa	23/10/1997	32.230	117.177
SPS002	Toodyay Brook at Dewar's Pool	Freehold	river	28/10/1997	31.461	116.433
SPS003	Lake Cronin	DCLM	open lake with <i>Melaleuca</i> fringe	25/09/1997	32.392	119.765
SPS004	Jimperding Brook	Freehold	river	28/10/1997	31.592	116.362
SPS005	Christopher Brook	Freehold	river	28/10/1997	32.170	116.794
SPS006	Lake Walbyring	DCLM	swamp with dead trees	25/10/1997	32.941	117.593
SPS007	Lake Dulbining	DCLM	swamp with dead trees	24/10/1997	32.907	117.614
SPS008	Helena River	DCLM	river	29/10/1997	31.944	116.436
SPS009	Lake Mears	DCLM	saline playa	22/10/1997	32.228	117.358

Site code	Wetland name	Land tenure	Wetland type	Date sampled	Latitude Longitude
SPS010	Dale River	Freehold	river	29/10/1997	32.302 116.688
SPS011	Nonalling Lake	DCLM	swamp with dead trees	24/10/1997	32.534 117.608
SPS012	Little White Lake	DCLM	swamp with dead trees	25/10/1997	33.012 117.441
SPS013	Hotham River	Freehold	river	29/10/1997	32.643 116.975
SPS014	Boase's Seep	Freehold	saline seep and palaeodrainage channel	01/10/1997	31.321 116.967
SPS015	Cowcowing Lakes	UCL	saline playa	10/09/1999	30.929 117.379
SPS016	Lake in Kondinin Salt Marsh NR	DCLM	saline playa	24/08/1998	32.581 118.403
SPS017	Samphire flat in Kondinin Salt Marsh NR	DCLM	samphire swamp	24/08/1998	32.590 118.412
SPS018	Dam at Kondinin Golf Club	Freehold	artificial wetland (small)	24/08/1998	32.488 118.302
SPS019	Lake Varley	DCLM	saline playa	23/08/1998	32.706 119.356
SPS020	Lake Gounter	DCLM	saline playa	26/09/1997	32.408 118.837
SPS021	Lake near Emu Rock	DCLM	saline playa	22/08/1998	32.463 119.417
SPS022	Baandee Lake	CRLG	saline playa	21/10/1997	31.591 117.956
SPS023	Goonaping Swamp	DCLM	low <i>Melaleuca</i> swamp	03/10/1997	32.149 116.593
SPS024	Pike's swamp	Freehold	open lake with sedge fringe	22/10/1997	32.228 116.890
SPS025	Fisher's Lake	Freehold	open lake with <i>Melaleuca</i> and samphire fringe	19/08/1998	32.803 118.630
SPS026	Eadine Spring	Freehold	spring	30/09/1997	31.714 116.536
SPS027	Clarke's wetland	Freehold	sedge swamp	01/10/1997	31.398 116.608
SPS028	Dam on Bushfire Rock Road	Freehold	artificial wetland (small)	22/08/1998	32.483 119.363
SPS029	Maitland's Pond	Freehold	artificial wetland (small)	23/10/1997	31.422 117.476
SPS030	Dam on Gorge Rock	CRLG	artificial wetland (small) on granite outcrop	22/10/1997	32.458 117.998
SPS031	Nalyerin Lake	DCLM	sedge swamp	08/10/1998	33.148 116.371
SPS032	Qualeup Lake	Freehold	sedge swamp	09/10/1998	33.839 116.764
SPS033	Caley's Soak	Freehold	artificial wetland (small)	21/10/1997	32.177 117.819
SPS034	Swamp in Paperbark NR	DCLM	artificial wetland (small)	08/10/1997	32.416 118.098
SPS035	Yormaning Dam	CRLG	artificial wetland (large)	26/10/1997	32.742 117.157
SPS036	Dam in Congelin NR	DCLM	artificial wetland (small)	26/10/1997	32.819 116.885
SPS037	Jim Master's Dams	Freehold	artificial wetlands (2, small and vegetated)	30/09/1997	31.616 116.536
SPS038	Meeking Lake	Freehold	open lake with <i>Baumea/Eucalyptus</i> fringe	08/10/1998	33.245 116.784
SPS039	Dead Man's Swamp	DCLM	open lake with <i>Casuarina/Eucalypt</i> fringe	24/09/1998	33.501 116.959
SPS040	Pearse's Lake	Freehold	open lake with sedge and sparse <i>Eucalyptus</i> fringe	02/10/1997	31.631 116.911
SPS041	Master's Lake 1	Freehold	open lake with sedge fringe	22/10/1997	31.568 117.423
SPS042	Lake in Coblinine Flats NR	DCLM	open lake with samphire and dead tree fringe	25/09/1998	33.607 117.708
SPS043	Claypan near Koorda	DCLM	excavated claypan	07/10/1997	30.969 117.463
SPS044	Gmeiner's Pond	Freehold	artificial wetland (small and vegetated)	09/10/1997	31.981 117.771
SPS045	Venemore's Pond	Freehold	open lake (arisen since clearing)	09/10/1997	31.983 117.796

Site code	Wetland name	Land tenure	Wetland type	Date sampled	Latitude Longitude
SPS046	Lake in North Wallambin NR	DCLM	saline playa	12/09/1999	30.919 117.633
SPS047	Mill's wetland	Freehold	open lake (arisen since clearing)	10/10/1997	32.273 117.244
SPS048	Frog Rock	DCLM	granite outcrop pools	23/09/1997	31.497 119.233
SPS049	Yilgarn Swamp	Freehold	Yate swamp	24/09/1997	31.953 119.300
SPS050	Marvel Loch Lake	UCL	saline playa	23/09/1997	31.516 119.635
SPS051	Nulla Nulla Lake	Freehold	saline playa	09/10/1997	31.489 119.026
SPS052	Simpson's Lake	Freehold	open lake (arisen since clearing)	22/10/1997	32.187 117.566
SPS053	Lake in Arthur River Flats NR	DCLM	open lake with samphire and dead tree fringe	19/08/1998	33.077 117.274
SPS054	Puntapin Rock	CR	granite outcrop pools	12/08/1998	33.325 117.401
SPS055	Parkeyerring Lake	DCLM/Freehold	open lake with thin <i>Casuarina</i> fringe	09/10/1998	33.375 117.354
SPS056	Bushy Swamp	Freehold	open lake with Yate/ <i>Melaleuca</i> fringe	24/09/1998	33.543 117.266
SPS057	Frost's Lake	Freehold	saline playa	25/08/1998	33.251 118.349
SPS058	Isthmus Lake	DCLM	saline playa	25/08/1998	33.325 118.451
SPS059	Cairn Rock	DCLM	granite outcrop pools	24/09/1997	31.859 118.844
SPS060	Job's Soak	Freehold	soak	10/10/1997	32.354 117.658
SPS061	Katanning Reservoir	Freehold	artificial wetland (large)	25/09/1998	33.659 117.518
SPS062	Corboule's Lake	Freehold	saline playa	07/10/1997	32.373 118.049
SPS063	Kattaning Creek at Twonkwilling Pool	CRLG	river	25/09/1998	33.719 117.588
SPS064	Larke's Claypan	Freehold	claypan	07/10/1997	32.308 118.046
SPS065	Larke's Dam	Freehold	artificial wetland (small)	07/10/1997	32.329 118.040
SPS066	Pickersgill Lake	DCLM	saline playa	07/10/1997	32.323 118.028
SPS067	Lake Biddy	DCLM	open lake with samphire/ <i>Melaleuca</i> fringe	23/08/1998	33.021 118.949
SPS068	Simpson's Pond	Freehold	artificial wetland (small)	22/10/1997	32.187 117.566
SPS069	Walymouring Lake	DCLM/Freehold	open lake and swamp with mostly dead trees	06/10/1997	31.147 116.872
SPS070	Dingo Rock	CR	granite outcrop pools	06/08/1998	33.009 118.602
SPS071	Lake King	DCLM	saline playa	21/08/1998	33.090 119.592
SPS072	Atkin's Yate Swamp	Freehold	Yate swamp	21/08/1998	33.130 119.679
SPS073	Town reservoir at Lake King	UCR	artificial wetland (small)	22/08/1998	33.092 119.678
SPS074	Darkin Swamp	DCLM	<i>Melaleuca</i> swamp	03/10/1997	32.113 116.513
SPS075	Stennett's Lake	Freehold	open lake with samphire and dead tree fringe	21/08/1998	33.199 119.978
SPS076	Crook's Lake	Freehold	open lake with samphire and dead tree fringe	08/10/1997	31.011 118.761
SPS077	Bennett's Lake	DCLM	saline playa with <i>Melaleuca</i> fringe	21/08/1998	33.281 119.602
SPS078	Dunn Rock	DCLM	granite outcrop pools	08/08/1998	33.336 119.494
SPS079	Koorda Lake	DCLM	saline playa	07/10/1997	30.975 117.442
SPS080	Lake in Lake Magenta NR	Crown Land	saline playa	26/08/1998	33.578 119.205
SPS081	Dam in Lake Magenta NR	DCLM	artificial wetland (small)	26/08/1998	33.492 119.090



Site code	Wetland name	Land tenure	Wetland type	Date sampled	Latitude	Longitude
SPS082	Girraween Yate Swamp	Freehold	Yate swamp	26/08/1998	33.636	119.353
SPS083	Yate Swamp on Range Road	CR	Yate swamp	25/08/1998	33.652	118.790
SPS084	Yarding Lake	UCL	saline playa	09/10/1997	31.916	117.981
SPS085	Ardath Lake	Freehold	saline playa	09/10/1997	32.098	118.156
SPS086	Irving's Swamp	Freehold	<i>Melaleuca/Eucalypt</i> swamp	10/10/1997	31.484	119.071
SPS087	Claypan in Frank Hahn NP	DCLM	claypan	20/08/1998	32.880	120.423
SPS088	Shackleton Lake	UCL	saline playa	21/10/1997	31.943	117.895
SPS089	Lake in Frank Hahn NP	UCL	saline playa	20/08/1998	32.964	120.361
SPS090	Meranda Road Wetland	Freehold	<i>Eucalyptus myriadena</i> swamp	25/09/1997	31.969	119.279
SPS091	Magner's Road <i>Melaleuca</i> Swamp	Freehold	<i>Melaleuca</i> swamp	27/09/1998	33.899	118.531
SPS092	Dam in NR 17798	DCLM	artificial wetland (small)	08/10/1997	31.172	118.284
SPS093	Lake Champion	DCLM	saline playa	08/10/1997	31.103	118.359
SPS094	Calyerup Creek	UCL	river	12/09/1998	33.936	119.066
SPS095	Rodger's Road Wetland	Freehold	saline playa	23/09/1997	31.134	119.348
SPS096	Yate swamp in Fitzgerald River NP	DCLM	Yate swamp	11/09/1998	33.840	119.826
SPS097	Master's Lake 2	Freehold	open lake with samphire and dead tree fringe	22/10/1997	31.571	117.428
SPS098	Mulinoling Wetland	Freehold	sedge swamp	02/10/1997	31.529	117.059
SPS099	Moorine South Lake	Freehold	saline playa	09/10/1997	31.399	119.114
SPS100	Hamersley River	DCLM	river	12/09/1998	33.890	119.861
SPS101	Lake in Three Swamps NR	DCLM	saline playa with <i>Melaleuca</i> fringe	26/09/1998	34.229	117.936
SPS102	Swamp in Ngopitchup Reserve	CR	sedge swamp	27/08/1998	33.958	117.342
SPS103	Lake Poorinup	DCLM	sedge swamp with tree fringe	02/10/1998	34.549	116.741
SPS104	Pindicup Lake	DCLM	sedge swamp	02/10/1998	34.407	116.713
SPS105	Kodjinup <i>Melaleuca</i> Swamp	DCLM	<i>Melaleuca</i> swamp	02/10/1998	34.396	116.650
SPS106	Anderson Lake	DCLM	saline playa	26/09/1998	34.184	117.960
SPS107	Lake in Mailalup NR	DCLM	open lake with fringe of <i>Melaleuca</i>	29/09/1998	34.354	118.480
SPS108	Pillenorup Swamp	DCLM	sedge/ <i>Melaleuca</i> swamp	30/09/1998	34.445	118.099
SPS109	Lake Baladjie	DCLM	saline playa	20/08/1999	30.958	118.915
SPS110	Tambellup Reservoir	CR	artificial wetland (large)	26/09/1998	34.040	117.566
SPS111	Boyacup Bridge Road Swamp	Freehold	sedge/ <i>Melaleuca</i> swamp	10/10/1998	34.232	117.247
SPS112	Tucker's Road Salt Lake	CR	saline playa	27/08/1998	34.417	117.251
SPS113	Tucker's Road <i>Melaleuca</i> Swamp	Freehold	<i>Melaleuca</i> Swamp	27/08/1998	34.415	117.248
SPS114	Lake Pleasant View	DCLM	sedge swamp	29/09/1998	34.831	118.183
SPS115	Peenebup Creek	CRLG	river	27/09/1998	34.101	118.537
SPS116	Yellilup Lake	Freehold	open lake with fringe of live and dead Yate	28/09/1998	34.313	119.030
SPS117	Pabellup South Swamp	DCLM	Yate swamp	12/09/1998	34.118	119.447
SPS118	Yellilup Swamp	Freehold	open lake with <i>Melaleuca</i> fringe	28/09/1998	34.383	118.978

Site code	Wetland name	Land tenure	Wetland type	Date sampled	Latitude Longitude
SPS119	Warramurrup Swamp	UVCR	sedge swamp	27/09/1998	34.411 119.171
SPS120	Lake in Munglinup NR	DCLM	open lake with samphire and <i>Melaleuca</i> /Yate fringe	03/09/1998	33.739 120.889
SPS121	Mason Bay Lake	DCLM	saline playa	11/09/1998	33.942 120.430
SPS122	North Parriup Lake	DCLM	saline playa	09/09/1998	33.866 120.637
SPS123	Oldfield River	UVCR	river	08/09/1998	33.733 120.720
SPS124	Youlabup Swamp	Freehold	low <i>Melaleuca</i> swamp	11/09/1998	33.828 120.406
SPS125	Quarry Lake	UCL	saline playa	10/09/1998	33.168 121.263
SPS126	Yanneymoonning Rock	DCLM	granite outcrop pools	11/09/1999	30.681 118.553
SPS127	Lake Mortijinup	DCLM	open lake with <i>Melaleuca</i> dominated fringe	09/09/1998	33.799 121.637
SPS128	Dunn's Swamp	CRLG	open lake with samphire and dead tree fringe	10/09/1998	33.924 120.153
SPS129	Ewert's Lake	UCL	open lake with sedge and <i>Melaleuca</i> fringe	04/09/1998	33.841 122.870
SPS130	Beaumont NR Salt Lake	DCLM	saline playa	04/09/1998	33.466 122.613
SPS131	Perk's Lake	Freehold	saline playa	05/09/1998	33.631 122.544
SPS132	Shark Lake	DCLM	open lake with sedge fringe	06/09/1998	33.769 121.861
SPS133	Swamp in Cape Le Grand NP	DCLM	sedge swamp	05/09/1998	33.976 122.126
SPS134	White Lake (in Helm's Arboretum)	DCLM	saline playa	07/09/1998	33.718 121.801
SPS135	Lake Caitup	CRLG	open lake with sedge and <i>Melaleuca</i> fringe	06/09/1998	33.727 121.726
SPS136	Lake Gore	DCLM	open lake with <i>Melaleuca/Casuarina/Acacia</i> fringe	08/09/1998	33.761 121.520
SPS137	Thomas River	DCLM	river	04/09/1998	33.814 123.037
SPS138	Truslove NR Dam	DCLM	artificial wetland (small)	05/09/1998	33.353 121.766
SPS139	Styles Rock	UCL	granite outcrop pools	07/09/1998	33.126 121.801
SPS140	Lake east of Salmon Gums NR	UCL	saline playa	07/09/1998	32.924 121.934
SPS141	Mullett Lake	DCLM	open lake, mostly with samphire fringe	06/09/1998	33.801 121.956
SPS142	Maitland's Lake	Freehold	open lake with sedge fringe	19/09/2000	31.343 117.373
SPS144	Lake Goorly d'stream of Glamoff Causeway	UCL	saline playa	18/08/1999	30.150 117.033
SPS145	Mount Marshall Dam	CR	artificial wetland (small)	10/09/1999	30.839 117.905
SPS146	Lake McDermot	CRLG	open lake with <i>Melaleuca/Casuarina</i> fringe	11/09/1999	30.827 117.931
SPS147	Nicoll's <i>Melaleuca</i> Swamp	DCLM	<i>Melaleuca</i> swamp	11/09/1999	30.783 118.293
SPS148	Lake Moore	UCL	saline playa	09/09/1999	30.100 117.467
SPS149	Samphire pan next to Lake Moore	Freehold	saline playa with samphire fringe	09/09/1999	30.099 117.445
SPS150	Sanderson's Lake	Freehold	open lake with samphire and dead tree fringe	09/09/1999	30.160 117.096
SPS151	Watheroo <i>Melaleuca</i> Swamp	DCLM	<i>Melaleuca</i> swamp	29/07/1999	30.302 115.936
SPS152	Dambouring Lake	DCLM	saline playa with samphire and dead tree fringe	07/09/1999	30.512 116.704
SPS153	Big Soak Plain Swamp	UCL	<i>Eucalyptus</i> swamp	18/09/1999	30.122 115.678
SPS154	Bentonite claypan in Pinjarega NR	DCLM	claypan	18/09/1999	30.085 115.954
SPS155	Lake in Mortijini NR	DCLM	open lake with <i>Melaleuca</i> fringe	20/09/1999	30.302 116.454

Site code	Wetland name	Land tenure	Wetland type	Date sampled	Latitude Longitude
SPS156	Lake in McTaggart Road NR	DCLM	open lake with samphire fringe?	10/09/1999	30.803 117.323
SPS157	Gunyidi Lake East	Freehold	saline playa	17/09/1999	30.127 116.225
SPS158	Gunyidi Lake West	Freehold	open lake, samphire and <i>Eucalyptus/Melaleuca</i> fringe	17/09/1999	30.131 116.202
SPS159	Lake Ninan	DCLM	open lake with samphire and <i>Melaleuca</i> fringe	07/09/1999	30.954 116.654
SPS160	Pertruder Rock Dam	CR	artificial wetland (small)	20/09/1999	30.422 116.961
SPS161	Cockleshell Gully	DCLM	river	24/09/1999	30.147 115.108
SPS162	Yarra Yarra Lake	DCLM	open lake with fringe of samphire and patchy <i>Casuarina</i>	12/08/1999	29.583 115.758
SPS163	Capamouro Swamp	DCLM	open lake with samphire and <i>Casuarina</i> fringe	13/08/1999	29.905 115.894
SPS164	Nullewa Lake	Pastoral	saline playa	15/08/1999	29.115 116.201
SPS165	Claypan on Kadji Kadji Station	Pastoral	claypan	14/08/1999	29.137 116.414
SPS166	Mongers Lake	Misc. Lands (Water)	saline playa	16/08/1999	29.543 116.706
SPS167	Samphire pan near Mongers Lake	Pastoral	saline pan with samphire fringe	08/09/1999	29.545 116.699
SPS168	Claypan on Wannara Station	Pastoral	claypan	08/09/1999	29.546 116.731
SPS169	Weelhamby Lake	DCLM	saline playa	15/08/1999	29.201 116.451
SPS170	Lake Harvey	DCLM	open lake and extensive samphire flats	19/08/1999	30.303 117.545
SPS171	Latham Lake	DCLM	saline playa with samphire and <i>Melaleuca</i> fringe	08/09/1999	29.704 116.407
SPS172	Just's Lake	Freehold	saline playa with samphire fringe	20/09/1999	29.726 116.366
SPS173	Simpson Road Lake	Freehold	saline playa with samphire fringe	14/08/1999	29.407 115.878
SPS174	Moffat's Lake 2	Freehold	samphire swamp	21/09/1999	29.373 115.892
SPS175	Pintha Rock	CRLG	granite outcrop pools	28/07/1999	29.073 115.998
SPS176	Wannara Rock	Pastoral	granite outcrop pools	08/09/1999	29.524 116.792
SPS177	Weelawadji Lake	DCLM	open lake with sedge and <i>Melaleuca/Casuarina</i> fringe	23/09/1999	29.832 115.128
SPS178	Coastal lake near Jurien	DCLM	coastal dune lake with sedge and <i>Melaleuca/Casuarina</i> fringe	23/09/1999	29.868 115.003
SPS179	Roach's Lake	Freehold	saline playa	20/09/1999	30.414 116.738
SPS180	Trib. Arrowsmith River at One Tree Hill	UCR	river	11/08/1999	29.589 115.442
SPS181	Heaton's Swamp	Freehold	open swamp with <i>Eucalyptus</i> fringe	11/08/1999	29.100 115.226
SPS182	Arro Lake	DCLM	open lake with <i>Melaleuca/Casuarina</i> fringe	22/09/1999	29.736 115.166
SPS183	Swamp north of Arro Lake	DCLM	<i>Casuarina</i> and <i>Melaleuca</i> swamp	22/09/1999	29.735 115.166
SPS184	Kelly Road Salt Flat	Freehold	Palaeodrainage flat with samphire fringe	26/07/1999	28.737 115.810
SPS185	Tardun CBC Dam	Freehold	artificial wetland (small)	25/07/1999	28.717 115.818
SPS186	Tardun CBC Salt Lake	Freehold	saline playa	25/07/1999	28.753 115.855
SPS187	Tardun CBC Swamp	Freehold	samphire swamp with <i>Melaleuca/Acacia</i> fringe	26/07/1999	28.723 115.825
SPS188	Utcha Swamp	DCLM	open lake and sedge swamp	21/07/1999	28.082 114.198
SPS189	Hutt Lagoon	UCL/Freehold	coastal lagoon	21/07/1999	28.208 114.308
SPS190	Yerina Spring	Freehold	spring-fed sedgeland	22/07/1999	28.103 114.336
SPS191	Wicherina Reservoir	CR	artificial wetland (large)	23/07/1999	28.733 114.998



Site code	Wetland name	Land tenure	Wetland type	Date sampled	Latitude Longitude
SPS192	Yarder Gully	Freehold	river	23/07/1999	28.188 114.411
SPS193	Skelton Gully	DCLM	river	24/07/1999	28.536 114.671
SPS194	Nolba Swamp	CR	<i>Eucalyptus</i> swamp	24/07/1999	28.237 114.855
SPS195	Hebiton's Salt Lake	Freehold	open lake with samphire and dead tree fringe	27/07/1999	28.833 115.471
SPS196	Hebiton's <i>Casuarina</i> Swamp	Freehold	<i>Casuarina/Melaleuca/Muehlenbeckia</i> swamp	28/07/1999	28.863 115.418
SPS197	Punjerwerry Claypan	Pastoral	claypan	20/07/1999	27.638 114.924
SPS198	Murchison River at Murchison Station	Pastoral	river	20/07/1999	27.646 114.234
SPS199	Binnu West Road Lake	Freehold	open lake with samphire, sedge and <i>Casuarina</i> fringe	09/08/1999	28.040 114.633
SPS200	Moffat's Lake 1	Freehold	open lake with samphire/ <i>Melaleuca</i> fringe	20/09/1999	29.308 115.913
SPS201	Marchagee NR Lake West	DCLM	samphire swamp	16/09/1999	29.959 116.079
SPS202	Little Three Springs	DCLM	spring	24/09/1999	29.984 115.086
SPS203	Marchagee NR Lake East	DCLM	open lake with <i>Melaleuca</i> fringe	16/09/1999	29.959 116.080
SPS204	Lake Wannamal	DCLM	open lake with <i>Melaleuca/Eucalyptus rudis</i> fringe	12/10/1999	31.130 116.046
SPS207	East Mortlock River	Freehold	Palaeodrainage flat with samphire fringe	18/09/2000	31.633 117.192
SPS208	Yilgarn River at Kellerberrin	CRLG	Palaeodrainage flat with samphire fringe	19/09/2000	31.696 117.714
SPS210	Chinocup Road Salt Lake	DCLM	saline playa	20/09/2000	33.490 118.394
SPS212	Lake near East Mortlock River	Freehold	saline playa	18/09/2000	31.630 117.192



**Appendix 2.** Water chemistry data collected on dates shown in Appendix 1.

SiteCode	pH	total N ( $\mu\text{g L}^{-1}$ )	total P ( $\mu\text{g L}^{-1}$ )	nitrate ( $\mu\text{g L}^{-1}$ )	chlorophyll ( $\mu\text{g L}^{-1}$ )	turbidity (NTU)	colour (TCU)	salinity ( $\text{g L}^{-1}$ )	alkalinity ( $\text{mg L}^{-1}$ )	hardness ( $\text{mg L}^{-1}$ )	$\text{SiO}_2$ ( $\text{mg L}^{-1}$ )	$\text{Na}^+$ ( $\text{mg L}^{-1}$ )	$\text{Ca}^{2+}$ ( $\text{mg L}^{-1}$ )	$\text{Mg}^{2+}$ ( $\text{mg L}^{-1}$ )	$\text{K}^+$ ( $\text{mg L}^{-1}$ )	$\text{Cl}^-$ ( $\text{mg L}^{-1}$ )	$\text{HCO}_3^-$ ( $\text{mg L}^{-1}$ )	$\text{CO}_3^{2-}$ ( $\text{mg L}^{-1}$ )	$\text{SO}_4^{2-}$ ( $\text{mg L}^{-1}$ )
SPM001	8.08	1400	30	0.48	1.0	19	100	1.40	110	360	5	380	55	54	13	650	130	<2	110
SPM002	8.18	1500	140	0.26	15.0	70	280	1.10	80	200	11	327	24	34	14	530	98	<2	69
SPM003	8.67	2000	20	1.8	7.0	3.7	11	5.30	180	1700	19	1400	120	330	11	3000	210	<2	160
SPM004	9.27	2800	20	0.05	1.0	6.1	24	40.90	130	9500	1	11000	850	1800	86	24000	160	<2	3000
SPM005	8.04	2500	20	0.21	0.5	5.5	130	6.70	220	1100	11	2100	65	220	54	3500	270	<2	480
SPM006	7.87	5800	80	<0.02	20.0	520	23	120.00	310	18000	2	33000	770	3800	640	65000	380	<2	5600
SPM007	7.35	1700	<10	<0.02	0.5	2.6	64	1.20	40	290	<1	330	20	59	4	610	49	<2	29
SPM008	9.81	26000	20	<0.02	0.5	7.7	5	41.00	280	5200	<1	12000	85	1200	270	22000	43	140	1600
SPM009	3.86	4300	<10	0.035	0.5	11	<5	60.00	<2	11000	31	15000	1500	1800	270	33000	<2	<2	3600
SPM010	8.24	4400	160	0.02	31.0	2.3	230	6.00	240	1000	7	1700	120	170	54	2800	290	<2	320
SPM011	8.14	1400	20	<0.02	0.5	76	210	0.42	130	80	48	75	9	14	7	56	160	<2	6
SPM012	3.82	3900	<10	0.24	4.0	19	<5	160.00	<2	17000	12	54000	1900	2900	530	95000	<2	<2	5900
SPM013	7.04	1900	20	<0.02	38.0	10	180	0.40	28	26	10	100	4	4	8	150	34	<2	4
SPM014	9.92	1800	10	<0.02	0.5	5.8	12	22.00	140	4200	1	6300	320	830	52	10000	76	48	1500
SPM015	9.90	2800	10	0.02	0.5	5.5	20	25.00	100	3700	1	7200	430	640	210	11000	<2	54	2000
SPM016	9.04	1900	10	<0.02	0.5	990	13	30.00	180	4600	8	8500	350	880	200	17000	160	30	1800
SPM017	7.70	1800	70	<0.02	15.5	27	190	0.40	93	61	2	109	13	7	12	140	113	<2	7
SPM019	7.67	2600	590	0.11	7.0	1400	130	0.45	148	93	12	102	20	10	9	110	180	<2	9
SPM020	8.03	1300	180	<0.02	7.0	2.4	110	3.30	208	520	2	1030	60	90	36	1700	253	<2	143
SPM022	8.50	3100	510	<0.02	40.5	850	390	1.10	263	130	5	215	24	18	16	220	320	<2	12
SPM023	8.01	5800	40	0.02	23.0	12	14	85.00	265	19000	1	24300	1570	3680	207	46000	323	<2	6230
SPM024	6.67	1300	<10	<0.02	6.5	1.7	71	0.71	35	110	3	220	10	21	13	350	43	<2	7
SPM025	7.44	2800	40	0.02	0.5	740	<5	300.00	158	33000	4	103000	657	7510	1620	180000	192	<2	14400
SPS001	7.47	5400	20	0.03	0.5	3.4	14	81.17	230	17000	5	24000	1400	3300	330	46000	280	<2	6000
SPS002	8.31	660	20	0.08	6.0	4.7	21	5.73	190	1500	14	1700	89	300	17	3200	230	<2	300
SPS003	9.48	940	10	<0.02	6.0	8.4	41	0.22	75	82	4	45	23	6	6	82	92	<2	4
SPS004	7.92	390	<10	0.05	1.0	2.3	<5	3.82	80	1100	8	1100	80	210	9	2200	98	<2	160
SPS005	8.06	370	30	<0.02	1.0	11	50	0.72	28	170	7	230	10	36	3	390	34	<2	28
SPS006	8.46	6400	30	<0.02	72.0	13	40	19.96	200	4200	2	6300	450	750	94	12000	250	<2	240
SPS007	7.76	2200	10	<0.02	40.0	2.7	67	10.74	140	2700	1	3100	320	460	39	5900	160	<2	840
SPS008	7.26	260	<10	0.05	0.5	2.5	16	1.74	13	630	16	460	53	120	5	1000	15	<2	78

SiteCode	pH	total N ( $\mu\text{g L}^{-1}$ )	total P ( $\mu\text{g L}^{-1}$ )	nitrate ( $\mu\text{g L}^{-1}$ )	chlorophyll ( $\mu\text{g L}^{-1}$ )	turbidity (NTU)	colour (TCU)	salinity ( $\text{g L}^{-1}$ )	alkalinity ( $\text{mg L}^{-1}$ )	hardness ( $\text{mg L}^{-1}$ )	$\text{SiO}_2$ ( $\text{mg L}^{-1}$ )	$\text{Na}^+$ ( $\text{mg L}^{-1}$ )	$\text{Ca}^{2+}$ ( $\text{mg L}^{-1}$ )	$\text{Mg}^{2+}$ ( $\text{mg L}^{-1}$ )	$\text{K}^+$ ( $\text{mg L}^{-1}$ )	$\text{Cl}^-$ ( $\text{mg L}^{-1}$ )	$\text{HCO}_3^-$ ( $\text{mg L}^{-1}$ )	$\text{CO}_3^{2-}$ ( $\text{mg L}^{-1}$ )	$\text{SO}_4^{2-}$ ( $\text{mg L}^{-1}$ )
SPS009	7.96	3400	10	<0.02	0.5	4.4	7	77.23	210	14000	3	24000	1500	2400	300	43000	260	<2	5900
SPS010	7.48	360	<10	0.04	62.0	3.7	24	7.65	140	2400	8	2100	180	470	13	4500	160	<2	290
SPS011	9.06	3000	30	<0.02	6.0	6.4	44	24.18	120	5300	10	7100	570	950	75	14000	150	<2	1400
SPS012	7.55	8200	30	0.02	18.0	3.7	29	126.92	240	28000	1	37000	2400	5300	470	72000	290	<2	9600
SPS013	7.84	920	10	0.02	51.0	3.5	44	10.89	300	2600	9	3300	180	530	26	6200	360	<2	460
SPS014	6.82	1700	<10	1.3	13.0	1.8	<5	37.06	68	5500	29	12000	230	1200	260	21000	82	<2	2300
SPS015	8.92	1200	10	<0.02	3.0	16	<5	50.00	73	9300	1	14400	1350	1440	403	25000	88	<2	4400
SPS016	3.67	4000	10	0.08	2.0	48	<5	84.00	<2	17000	8	25000	1600	3100	370	46000	<2	<2	7000
SPS017	9.25	1100	10	<0.02	0.5	6.9	15	10.00	20	1700	1	3200	140	320	55	5600	24	<2	530
SPS018	7.80	1500	20	0.4	0.5	220	8	0.10	50	53	28	10	13	5	2	11	61	<2	3
SPS019	8.05	1200	10	<0.02	2.0	50	<5	110.00	85	16000	<1	36000	1700	2900	810	60000	100	<2	7300
SPS020	2.14	8700	<10	0.06	3.0	3.8	7	328.38	<2	30000	6	110000	760	6900	1100	200000	<2	<2	9600
SPS021	8.09	820	10	<0.02	0.5	17	<5	74.00	120	13000	<1	22000	1400	2300	470	39000	150	<2	5800
SPS022	6.30	1700	10	0.22	10.0	3.3	<5	62.98	10	12000	2	20000	1300	2100	360	36000	12	<2	3200
SPS023	7.44	1500	10	<0.02	2.0	7.8	88	0.27	13	13	5	43	2	2	3	65.24	15	<2	3
SPS024	8.55	3000	10	<0.02	5.0	3.5	53	3.46	300	550	5	1200	23	120	16	1900	370	<2	12
SPS025	6.05	1200	<10	0.11	0.5	20	<5	300.00	5	8900	5	120000	1100	1500	550	180000	6	<2	4700
SPS026	7.70	720	10	0.02	8.0	3.3	40	3.87	93	780	15	1200	34	170	14	2200	110	<2	180
SPS027	7.72	810	10	0.03	3.0	3.5	59	0.57	65	78	4	190	5	16	5	280	79	<2	26
SPS028	8.72	1500	20	0.39	0.5	39	11	0.32	210	150	9	70	26	21	12	47	260	<2	6
SPS029	9.16	1400	10	0.08	22.0	2.8	14	6.37	78	560	57	2200	45	110	51	3400	95	<2	460
SPS030	7.64	1300	10	0.05	3.0	4.6	<5	0.04	8	<10	2	7	1	1	1	7.17	9	<2	2
SPS031	7.30	930	10	<0.02	0.5	0.4	160	0.17	20	21	9	43	2	4	4	70	24	<2	8
SPS032	7.96	1200	10	<0.02	0.5	0.6	61	0.73	75	230	<1	180	32	36	5	370	92	<2	10
SPS033	9.47	910	20	0.14	83.0	10	30	0.16	25	15	3	31	1	3	4	43.26	31	<2	1
SPS034	8.97	2700	20	<0.02	51.0	51	51	1.37	300	220	1	460	36	32	21	630	370	<2	8
SPS035	7.28	1400	10	<0.02	14.0	2.1	10	4.11	140	890	<1	1300	58	180	10	2300	160	<2	180
SPS036	8.34	690	10	<0.02	4.0	29	66	0.21	63	45	10	65	5	7	6	76	76	<2	3
SPS037	8.07	570	10	<0.02	1.0	3.5	12	5.73	140	1900	4	1500	120	380	19	3400	170	<2	220
SPS038	10.15	1200	10	<0.02	0.5	0.9	27	4.10	45	1300	4	920	140	240	9	2200	24	15	150
SPS039	7.66	2000	50	<0.02	1.0	1	160	4.30	100	1100	7	1200	96	200	15	2300	120	<2	200
SPS040	9.91	2300	20	<0.02	2.0	7.4	27	6.59	160	1500	1	2000	97	310	21	4000	190	<2	61
SPS041	7.19	2700	10	0.08	2.0	4.3	9	4.91	95	520	19	1700	12	120	51	2600	120	<2	350
SPS042	8.56	2300	30	0.03	2.0	4.4	98	5.40	210	1100	1	1700	110	200	16	3000	260	<2	230
SPS043	8.81	10000	6700	0.7	0.5	7900	160	1.19	460	100	11	440	12	17	30	380	560	<2	25

SiteCode	pH	total N ( $\mu\text{g L}^{-1}$ )	total P ( $\mu\text{g L}^{-1}$ )	nitrate ( $\mu\text{g L}^{-1}$ )	chlorophyll ( $\mu\text{g L}^{-1}$ )	turbidity (NTU)	colour (TCU)	salinity (g L <sup>-1</sup> )	alkalinity (mg L <sup>-1</sup> )	hardness (mg L <sup>-1</sup> )	SiO <sub>2</sub> (mg L <sup>-1</sup> )	Na <sup>+</sup> (mg L <sup>-1</sup> )	Ca <sup>2+</sup> (mg L <sup>-1</sup> )	Mg <sup>2+</sup> (mg L <sup>-1</sup> )	K <sup>+</sup> (mg L <sup>-1</sup> )	Cl <sup>-</sup> (mg L <sup>-1</sup> )	HCO <sub>3</sub> <sup>-</sup> (mg L <sup>-1</sup> )	CO <sub>3</sub> <sup>2-</sup> (mg L <sup>-1</sup> )	SO <sub>4</sub> <sup>2-</sup> (mg L <sup>-1</sup> )
SPS044	7.73	1300	10	<0.02	5.0	1.7	98	1.39	200	140	3	500	8	29	24	620	240	<2	81
SPS045	8.86	1300	10	0.52	2.0	3.7	6	0.83	48	120	45	270	5	25	8	390	58	<2	61
SPS046	4.22	12000	20	0.12	4.0	22	<5	120.00	<2	24000	15	34700	2580	4180	799	66000	<2	<2	4890
SPS047	9.05	2800	20	0.02	118.0	8.7	46	5.44	250	550	29	1900	40	110	46	3000	300	<2	160
SPS048	7.15	400	10	<0.02	0.5	2	<5	0.03	3	19	1	6	6	1	1	9	3	<2	4
SPS049	9.26	870	10	<0.02	4.0	9.1	21	0.16	83	74	1	36	18	7	7	36	100	<2	1
SPS050	7.82	28000	10	14	11.0	8.9	<5	299.66	58	42000	5	95000	800	9700	1100	180000	70	<2	13000
SPS051	8.56	2100	10	<0.02	6.0	7.3	8	45.73	100	8400	1	14000	1200	1300	370	24000	120	<2	4800
SPS052	8.14	4100	20	0.04	0.5	2.1	10	104.79	240	16000	45	34000	1000	3300	600	60000	290	<2	5700
SPS053	8.03	2200	20	<0.02	12.0	2.5	8	120.00	110	17000	<1	40000	1200	3500	310	68000	130	<2	5100
SPS054	6.77	810	10	<0.02	15.0	7	14	0.03	3	<10	<1	5	1	1	0	14	3	<2	3
SPS055	8.39	2200	10	<0.02	9.0	3.5	27	27.00	120	6200	1	8100	660	1100	75	15000	150	<2	2300
SPS056	8.89	1000	10	<0.02	0.5	0.5	91	8.40	120	1700	<1	2600	120	350	22	5000	150	<2	390
SPS057	10.19	2300	20	<0.02	15.0	1.1	28	15.00	220	2400	<1	4700	100	520	65	8100	95	87	650
SPS058	8.08	980	10	<0.02	3.0	19	<5	110.00	120	10000	<1	42000	690	2100	640	66000	140	<2	3200
SPS059	6.73	570	10	0.02	2.0	1.7	14	0.11	10	<10	4	13	1	1	1	15.33	12	<2	2
SPS060	9.61	6700	30	<0.02	0.5	4.3	240	3.52	270	500	8	1200	56	87	35	1600	330	<2	370
SPS061	8.28	370	<10	0.03	0.5	0.6	<5	0.20	20	54	<1	47	10	7	2	86	24	<2	8
SPS062	9.84	1400	10	<0.02	0.5	7.8	5	40.47	50	7300	1	13000	270	1600	170	23000	61	<2	2400
SPS063	7.86	3300	800	1.1	62.0	5	99	7.50	190	1600	2	2300	110	320	17	4000	230	<2	370
SPS064	9.11	8300	570	0.02	38.0	3400	37	1.96	400	160	3	710	26	22	24	840	490	<2	91
SPS065	9.11	1800	210	<0.02	0.5	370	8	0.82	310	140	4	270	25	20	19	220	380	<2	73
SPS066	8.07	4400	40	0.02	6.0	5.6	<5	226.21	130	32000	1	66000	1000	7200	930	140000	160	<2	11000
SPS067	9.87	2000	20	<0.02	5.0	1	15	33.00	75	5700	1	10000	480	1100	230	19000	37	27	2000
SPS068	9.39	2800	10	1.2	19.0	2.5	11	0.40	75	120	39	51	13	21	6	87.16	92	<2	33
SPS069	8.32	12000	50	<0.02	2.0	12	42	81.16	220	15000	1	24000	2300	2200	830	43000	270	<2	8700
SPS070	5.81	390	<10	<0.02	3.0	2	6	0.04	3	<10	<1	13	1	1	1	12	3	<2	11
SPS071	7.83	1200	<10	<0.02	0.5	5.7	<5	100.00	60	13000	<1	29000	1600	2300	740	52000	73	<2	6500
SPS072	9.60	730	10	<0.02	3.0	6.3	24	5.30	68	1300	1	1600	190	190	53	2800	70	6	500
SPS073	8.81	660	50	0.13	6.0	740	25	0.14	90	54	14	40	10	7	4	22	110	<2	16
SPS074	7.29	2200	90	<0.02	3.0	1.9	380	0.22	25	38	6	28	7	5	2	43.62	31	<2	7
SPS075	8.91	2000	10	<0.02	0.5	2.9	20	19.00	250	3300	<1	6200	210	680	200	10000	300	6	1300
SPS076	6.85	1500	10	<0.02	0.5	2	<5	68.04	15	13000	9	21000	720	2800	400	40000	18	<2	3100
SPS077	9.28	2200	10	<0.02	0.5	1.5	35	30.00	220	3800	<1	9600	55	900	190	17000	180	42	1200
SPS078	7.12	640	10	<0.02	1.0	1	23	0.03	3	<10	<1	12	1	1	1	12	3	<2	3



SiteCode	pH	total N ( $\mu\text{g L}^{-1}$ )	total P ( $\mu\text{g L}^{-1}$ )	nitrate ( $\mu\text{g L}^{-1}$ )	chlorophyll ( $\mu\text{g L}^{-1}$ )	turbidity (NTU)	colour (TCU)	salinity ( $\text{g L}^{-1}$ )	alkalinity ( $\text{mg L}^{-1}$ )	hardness ( $\text{mg L}^{-1}$ )	$\text{SiO}_2$ ( $\text{mg L}^{-1}$ )	$\text{Na}^+$ ( $\text{mg L}^{-1}$ )	$\text{Ca}^{2+}$ ( $\text{mg L}^{-1}$ )	$\text{Mg}^{2+}$ ( $\text{mg L}^{-1}$ )	$\text{K}^+$ ( $\text{mg L}^{-1}$ )	$\text{Cl}^-$ ( $\text{mg L}^{-1}$ )	$\text{HCO}_3^-$ ( $\text{mg L}^{-1}$ )	$\text{CO}_3^{2-}$ ( $\text{mg L}^{-1}$ )	$\text{SO}_4^{2-}$ ( $\text{mg L}^{-1}$ )
SPS079	9.68	990	10	0.04	3.0	3.2	<5	20.56	53	4000	1	6100	730	530	170	11000	64	∇	2000
SPS080	7.70	8800	570	0.05	700.0	1200	7	160.00	160	19000	3	59000	1900	3400	1200	91000	190	∇	8800
SPS081	8.09	1300	20	0.02	2.0	39	100	0.46	140	180	9	110	36	22	13	200	170	∇	13
SPS082	7.37	2000	160	0.04	6.0	3.3	260	0.35	80	68	2	96	14	8	10	140	98	∇	3
SPS083	7.92	2100	150	<0.02	57.0	36	380	0.52	120	100	32	130	19	13	12	170	140	∇	9
SPS084	3.47	2600	10	0.04	15.0	6.6	<5	140.53	<2	14000	9	47000	2000	2100	320	83000	<2	∇	6100
SPS085	3.81	2800	10	0.03	9.0	54	<5	55.67	<2	11000	3	16000	1500	1800	260	32000	<2	∇	4100
SPS086	9.21	80	140	<0.02	143.0	15	130	0.37	140	45	1	110	8	6	8	103.9	170	∇	4
SPS087	7.90	4400	1400	1.1	2.0	14000	<5	1.00	80	<10	4400	300	0	1	20	420	98	∇	11
SPS088	2.96	50000	10	<0.02	0.5	20	17	240.15	<2	39000	39	75000	1000	8900	1200	140000	<2	∇	14000
SPS089	3.87	3000	30	0.09	53.0	310	<5	33.00	<2	4500	33	11000	140	1000	230	19000	<2	∇	1900
SPS090	7.31	1700	140	0.04	50.0	22	65	0.25	80	74	1	15	18	7	5	18.79	98	∇	1
SPS091	7.54	1200	30	<0.02	0.5	4.4	130	2.00	100	460	11	630	73	68	22	1000	130	∇	190
SPS092	7.92	1100	30	0.03	7.0	15	42	0.08	43	31	14	12	6	4	4	15	52	∇	1
SPS093	4.03	6300	10	0.31	2.0	24	<5	146.79	3	13000	3	51000	1500	2300	480	87000	3	∇	4500
SPS094	7.49	1500	10	<0.02	1.0	1.8	200	4.20	50	830	11	1300	67	160	24	2300	61	∇	290
SPS095	3.62	13000	<10	1.8	0.5	4.2	<5	296.52	<2	31000	16	98000	1000	7000	1100	180000	<2	∇	9400
SPS096	7.67	6700	370	0.05	256.0	5	2800	1.10	220	350	30	190	98	25	24	310	260	∇	48
SPS097	7.58	2200	10	0.03	0.5	2.4	6	218.52	120	13000	40	78000	1300	2400	610	130000	150	∇	6100
SPS098	9.48	620	10	<0.02	5.0	21	16	4.23	110	660	4	1400	32	140	26	2300	140	∇	260
SPS099	2.39	5800	10	0.12	94.0	6.9	<5	209.54	<2	28000	41	69000	1300	6000	1200	120000	<2	∇	12000
SPS100	7.15	1300	10	0.1	1.0	1.1	91	20.00	85	3500	8	6100	160	750	120	11000	100	∇	1500
SPS101	9.80	2800	20	0.02	0.5	1.4	140	31.00	330	4400	1	10000	120	1000	230	18000	160	120	1400
SPS102	8.47	1600	60	<0.02	8.0	220	280	0.58	33	11	220	45	1	2	4	46	40	∇	2
SPS103	6.54	900	10	<0.02	2.0	0.8	220	0.21	10	35	4	44	4	6	2	82	12	∇	5
SPS104	7.30	810	<10	<0.02	0.5	0.6	37	3.60	130	1100	9	870	150	170	32	1500	160	∇	710
SPS105	6.05	2800	30	<0.02	0.5	0.1	1500	1.00	28	130	9	250	10	26	6	420	34	∇	9
SPS106	8.06	3700	50	<0.02	18.0	7.5	36	130.00	150	16000	2	42000	310	3700	580	80000	180	∇	6000
SPS107	7.88	1800	30	<0.02	4.0	0.6	91	63.00	78	6300	8	19000	550	1200	560	33000	95	∇	4500
SPS108	7.08	1300	<10	<0.02	0.5	0.5	320	0.41	38	41	20	93	5	7	10	150	46	∇	5
SPS109	7.77	1100	20	<0.02	15.0	38	<5	130.00	58	14000	1	46900	2100	2130	700	72000	70	∇	6610
SPS110	6.82	1200	40	<0.02	0.5	25	220	0.20	23	26	26	43	4	4	2	56	27	∇	5
SPS111	9.06	1000	10	<0.02	2.0	3	110	3.20	65	720	2	920	43	150	6	1700	79	∇	180
SPS112	9.24	690	<10	<0.02	2.0	0.2	8	20.00	40	4500	<1	5500	740	640	88	9800	37	6	2500
SPS113	6.84	840	10	<0.02	2.0	0.4	130	3.60	30	980	2	870	95	180	6	1900	37	∇	120



SiteCode	pH	total N ( $\mu\text{g L}^{-1}$ )	total P ( $\mu\text{g L}^{-1}$ )	nitrate ( $\mu\text{g L}^{-1}$ )	chlorophyll ( $\mu\text{g L}^{-1}$ )	turbidity (NTU)	colour (TCU)	salinity ( $\text{g L}^{-1}$ )	alkalinity ( $\text{mg L}^{-1}$ )	hardness ( $\text{mg L}^{-1}$ )	$\text{SiO}_2$ ( $\text{mg L}^{-1}$ )	$\text{Na}^+$ ( $\text{mg L}^{-1}$ )	$\text{Ca}^{2+}$ ( $\text{mg L}^{-1}$ )	$\text{Mg}^{2+}$ ( $\text{mg L}^{-1}$ )	$\text{K}^+$ ( $\text{mg L}^{-1}$ )	$\text{Cl}^-$ ( $\text{mg L}^{-1}$ )	$\text{HCO}_3^-$ ( $\text{mg L}^{-1}$ )	$\text{CO}_3^{2-}$ ( $\text{mg L}^{-1}$ )	$\text{SO}_4^{2-}$ ( $\text{mg L}^{-1}$ )
SPS114	6.90	1200	10	<0.02	5.0	3.2	130	0.51	28	78	6	140	8	14	10	240	34	<2	7
SPS115	7.63	2400	290	<0.02	22.0	0.7	380	7.70	93	1700	5	2300	100	350	29	4200	110	<2	520
SPS116	8.53	1900	20	<0.02	36.0	9.5	63	8.60	230	1800	9	2700	160	330	45	4900	280	<2	450
SPS117	6.27	1200	10	<0.02	2.0	6.4	380	0.19	18	27	18	31	6	3	3	46	21	<2	3
SPS118	8.72	5000	40	<0.02	2.0	10	34	42.00	680	4900	<1	13000	130	1100	510	24000	830	<2	1500
SPS119	8.31	1500	<10	<0.02	1.0	15	61	3.40	460	430	17	1100	28	87	45	1400	520	18	360
SPS120	7.60	2800	60	<0.02	89.0	57	340	2.50	75	400	23	660	44	71	35	1100	92	<2	130
SPS121	8.73	220	<10	<0.02	12.0	86	<5	3.40	100	420	1	1000	53	71	61	1700	130	<2	190
SPS122	8.04	1000	20	0.04	11.0	1.3	260	6.00	110	840	6	1900	74	160	65	3100	140	<2	430
SPS123	7.57	610	10	<0.02	24.0	0.8	49	21.00	170	3300	7	6600	160	710	180	11000	210	<2	1700
SPS124	6.60	4600	100	<0.02	18.0	0.5	540	1.60	50	270	<1	420	33	46	19	770	61	<2	34
SPS125	7.71	1000	10	<0.02	2.0	2	<5	69.00	13	10000	<1	20000	1600	1500	460	38000	15	<2	5100
SPS126	6.33	630	<10	0.28	4.5	4.5	<5	0.08	3	13	1	14	2	2	2	20	3	<2	10
SPS127	8.70	1700	10	<0.02	21.0	2.6	120	6.90	250	1000	1	2300	62	210	64	3700	300	<2	520
SPS128	7.36	1900	30	<0.02	43.0	1.5	440	6.20	53	1200	4	1700	130	220	59	3000	64	<2	620
SPS129	8.99	3300	30	<0.02	57.0	36	100	2.20	400	270	20	740	32	46	52	1000	490	<2	35
SPS130	8.76	780	<10	<0.02	0.5	11	5	49.00	85	7600	<1	13000	580	1500	330	26000	100	<2	3700
SPS131	8.35	6600	40	<0.02	8.0	3.4	21	120.00	240	16000	1	34000	830	3500	820	66000	300	<2	7200
SPS132	8.66	1200	130	<0.02	2.0	0.7	71	2.50	240	410	<1	760	51	69	45	1200	290	<2	140
SPS133	5.97	460	<10	<0.02	0.5	1.3	81	0.45	10	75	6	120	7	14	5	200	12	<2	27
SPS134	8.47	870	10	<0.02	1.0	9.3	6	23.00	110	3700	9	6600	600	530	240	12000	130	<2	2000
SPS135	7.99	2200	550	<0.02	196.0	1	350	3.40	120	540	<1	1000	53	100	34	1700	150	<2	180
SPS136	8.58	3100	30	<0.02	81.0	16	32	54.00	260	7800	5	15000	310	1700	460	28000	310	<2	3700
SPS137	8.33	730	30	0.04	6.0	8.3	63	17.00	410	2800	28	5000	230	530	180	8900	500	<2	1200
SPS138	8.84	540	20	<0.02	0.5	80	<5	0.23	120	66	12	51	15	7	5	53	150	<2	4
SPS139	8.81	600	10	<0.02	1.0	0.5	31	0.08	8	13	1	16	2	2	1	25	9	<2	4
SPS140	8.15	930	<10	<0.02	0.5	0.8	<5	88.00	48	13000	<1	26000	1600	2200	350	47000	58	<2	6100
SPS141	8.50	1300	10	<0.02	2.0	1.6	64	14.00	190	2000	14	4200	100	420	94	7300	230	<2	1000
SPS142	9.69	960	<10	<0.02	2.0	0.5	8	10.00	40	2100	2	2850	355	292	65	4700	43	<2	986
SPS144	9.69	1400	30	<0.02	56.0	7.6	8	52.00	60	5400	1	16700	420	1060	406	29000	73	<2	2040
SPS145	7.62	1200	50	0.03	3.0	51	140	0.26	45	46	73	37	12	4	3	45	55	<2	5
SPS146	7.02	750	<10	<0.02	2.5	1.5	8	6.10	15	1300	1	1670	248	167	66	3100	18	<2	722
SPS147	7.13	1000	10	<0.02	9.0	32	7	10.00	38	2500	1	2460	374	381	89	5000	46	<2	428
SPS148	7.95	1500	40	<0.02	8.5	270	<5	120.00	123	16000	1	37100	1870	2750	1270	64000	149	<2	7700
SPS149	8.03	1200	10	<0.02	147.5	2.9	16	12.00	103	2600	3	2600	616	248	119	4400	125	<2	1790

SiteCode	pH	total N ( $\mu\text{g L}^{-1}$ )	total P ( $\mu\text{g L}^{-1}$ )	nitrate ( $\mu\text{g L}^{-1}$ )	chlorophyll ( $\mu\text{g L}^{-1}$ )	turbidity (NTU)	colour (TCU)	salinity ( $\text{g L}^{-1}$ )	alkalinity ( $\text{mg L}^{-1}$ )	hardness ( $\text{mg L}^{-1}$ )	SiO <sub>2</sub> ( $\text{mg L}^{-1}$ )	Na <sup>+</sup> ( $\text{mg L}^{-1}$ )	Ca <sup>2+</sup> ( $\text{mg L}^{-1}$ )	Mg <sup>2+</sup> ( $\text{mg L}^{-1}$ )	K <sup>+</sup> ( $\text{mg L}^{-1}$ )	Cl <sup>-</sup> ( $\text{mg L}^{-1}$ )	HCO <sub>3</sub> <sup>-</sup> ( $\text{mg L}^{-1}$ )	CO <sub>3</sub> <sup>2-</sup> ( $\text{mg L}^{-1}$ )	SO <sub>4</sub> <sup>2-</sup> ( $\text{mg L}^{-1}$ )
SPS150	8.72	1100	20	<0.02	6.5	2.1	22	11.00	133	2000	1	3820	149	392	155	6100	162	∇	619
SPS151	7.25	1600	40	<0.02	17.0	3.2	200	1.10	115	270	10	305	56	32	13	440	140	∇	140
SPS152	8.91	1300	20	<0.02	7.5	2.3	<5	29.00	63	4500	1	9030	842	585	193	15000	76	∇	2540
SPS153	7.09	4700	480	<0.02	10.5	13	630	0.20	28	46	3	16	10	5	4	22	34	∇	3
SPS154	9.08	1200	10	<0.02	15.5	110	20	0.70	205	56	14	241	11	7	14	240	250	∇	5
SPS155	8.35	2500	20	<0.02	4.5	1.5	180	16.00	228	2500	16	4910	262	441	156	8300	278	∇	906
SPS156	8.96	940	10	<0.02	17.0	1.8	11	17.00	73	2800	<1	4900	506	363	124	8200	88	∇	1520
SPS157	9.22	870	10	<0.02	11.5	4.4	11	92.00	48	19000	2	27400	1370	3700	646	50000	58	∇	6820
SPS158	8.54	1300	30	<0.02	20.0	23	6	37.00	85	4700	1	11800	641	763	237	18000	104	∇	2230
SPS159	8.13	1500	20	<0.02	2.5	2	47	13.00	75	2200	1	3740	106	474	74	6200	92	∇	674
SPS160	7.58	1300	30	0.02	2.0	5.8	16	0.45	103	130	27	106	26	16	4	160	125	∇	11
SPS161	7.27	690	10	<0.02	4.5	14	88	1.30	73	290	28	385	22	57	15	650	88	∇	75
SPS162	8.40	1000	20	<0.02	29.5	28	12	41.00	83	4600	2	13500	426	849	330	22000	101	∇	2020
SPS163	8.40	1400	10	0.2	6.5	4.2	35	9.20	73	1300	1	2950	141	222	81	4800	88	∇	528
SPS164	8.35	660	20	<0.02	10.5	10	<5	56.00	88	7000	1	17700	445	1430	511	29000	107	∇	3100
SPS165	8.40	1300	120	<0.02	6.5	330	28	0.12	15	<10	160	46	0	1	3	34	18	∇	8
SPS166	7.76	1300	40	<0.02	7.5	13	10	130.00	60	14000	1	44000	1810	2260	999	72000	73	∇	7070
SPS167	10.15	650	10	<0.02	12.5	14	11	11.00	78	1800	1	3040	143	339	126	5100	46	∇	579
SPS168	8.40	2700	150	<0.02	17.5	25	54	0.27	103	32	7	74	3	6	10	59	125	∇	4
SPS169	7.89	430	10	<0.02	4.0	1.2	<5	47.00	48	3200	1	16900	315	591	269	26000	58	∇	1490
SPS170	8.74	950	20	<0.02	7.0	3.6	<5	25.00	60	5300	1	6650	1220	539	288	11000	73	∇	3650
SPS171	8.34	1100	20	<0.02	12.5	14	21	5.30	65	2100	1	1000	675	105	46	1800	79	∇	1730
SPS172	9.19	940	10	<0.02	3.0	2.4	<5	53.00	33	10000	1	14300	1220	1690	419	27000	21	∇	4560
SPS173	10.49	1100	30	<0.02	14.5	1	19	26.00	85	4100	1	7870	327	790	210	14000	43	∇	1810
SPS174	9.84	1100	20	<0.02	6.5	2.3	33	11.00	88	1800	1	2930	191	331	90	5100	107	∇	725
SPS175	7.30	750	40	<0.02	33.0	7	16	0.04	10	<10	1	9	1	1	11	12	∇	3	
SPS176	7.53	550	20	<0.02	6.5	2.2	18	0.09	15	11	2	37	1	2	2	44	18	∇	8
SPS177	7.15	1400	110	<0.02	7.0	2300	99	0.86	43	140	100	221	19	22	15	370	52	∇	42
SPS178	8.62	1400	20	<0.02	9.0	2.6	16	24.00	100	5200	17	6580	1030	643	236	11000	122	∇	3200
SPS179	3.25	5700	10	0.18	3.5	15	<5	74.00	<2	13000	48	22300	1310	2300	561	37000	<2	∇	6350
SPS180	7.65	880	10	<0.02	4.5	1.2	240	1.70	53	240	68	555	7	53	27	900	64	∇	79
SPS181	6.69	3700	980	<0.02	6.0	2.4	240	0.13	35	46	5	12	13	4	6	13	43	∇	6
SPS182	7.32	1700	220	0.23	4.5	2200	220	0.15	30	13	27	26	2	2	5	22	37	∇	4
SPS183	7.19	1100	20	<0.02	6.0	4.9	95	0.13	38	32	4	28	8	3	5	34	46	∇	1
SPS184	8.63	1500	20	<0.02	3.5	2.1	12	56.00	333	7800	2	17500	299	1720	589	28000	406	∇	4450

SiteCode	pH	total N ( $\mu\text{g L}^{-1}$ )	total P ( $\mu\text{g L}^{-1}$ )	nitrate ( $\mu\text{g L}^{-1}$ )	chlorophyll ( $\mu\text{g L}^{-1}$ )	turbidity (NTU)	colour (TCU)	salinity ( $\text{g L}^{-1}$ )	alkalinity ( $\text{mg L}^{-1}$ )	hardness ( $\text{mg L}^{-1}$ )	$\text{SiO}_2$ ( $\text{mg L}^{-1}$ )	$\text{Na}^+$ ( $\text{mg L}^{-1}$ )	$\text{Ca}^{2+}$ ( $\text{mg L}^{-1}$ )	$\text{Mg}^{2+}$ ( $\text{mg L}^{-1}$ )	$\text{K}^+$ ( $\text{mg L}^{-1}$ )	$\text{Cl}^-$ ( $\text{mg L}^{-1}$ )	$\text{HCO}_3^-$ ( $\text{mg L}^{-1}$ )	$\text{CO}_3^{2-}$ ( $\text{mg L}^{-1}$ )	$\text{SO}_4^{2-}$ ( $\text{mg L}^{-1}$ )
SPS185	7.02	790	20	0.28	8.5	26	17	0.05	10	7	10	12	1	1	3	13	12	<2	3
SPS186	8.92	2400	10	0.5	3.5	1.8	<5	47.50	170	7600	7	15000	698	1430	645	25000	140	33	4560
SPS187	7.31	700	30	0.02	4.5	8.2	63	4.90	145	220	6	281	52	23	20	390	177	<2	94
SPS188	7.55	680	30	<0.02	3.0	1.3	93	1.80	275	470	33	525	93	58	44	750	336	<2	198
SPS189	8.02	2200	10	<0.02	3.5	3.9	<5	180.00	145	15000	6	69600	965	3000	1230	110000	177	<2	6470
SPS190	6.16	670	10	<0.02	2.5	4.9	310	1.50	113	260	57	480	19	51	13	720	137	<2	105
SPS191	6.93	450	20	0.03	5.5	11	70	0.32	38	72	23	94	9	12	7	140	46	<2	20
SPS192	7.53	820	20	0.1	2.0	14	170	1.30	93	230	34	441	19	45	13	700	113	<2	65
SPS193	7.29	1500	40	0.13	4.0	14	200	2.30	103	430	31	728	37	83	17	1200	125	<2	139
SPS194	6.67	820	130	0.07	33.5	72	61	0.34	18	72	28	75	14	9	11	140	21	<2	15
SPS195	9.64	530	10	<0.02	2.0	1.2	19	20.00	43	3900	3	5950	374	718	161	10000	52	<2	2010
SPS196	7.59	680	90	<0.02	2.5	7.3	160	1.30	143	240	8	431	39	34	15	650	174	<2	75
SPS197	7.53	800	90	<0.02	6.5	68	93	0.09	28	18	26	7	4	2	6	2.5	34	<2	1
SPS198	7.95	330	<10	0.11	8.5	17	14	4.70	163	870	13	1390	103	150	44	2300	198	<2	564
SPS199	8.87	930	10	<0.02	2.5	1	<5	14.00	203	2000	19	4600	121	405	146	6900	247	<2	1070
SPS200	7.87	770	10	<0.02	3.0	2	54	7.00	50	1000	1	2220	89	196	76	3700	61	<2	489
SPS201	9.37	1200	20	<0.02	5.5	1.9	89	21.00	98	4300	1	6200	684	621	124	11000	119	<2	2060
SPS202	8.05	770	10	<0.02	10.0	4.5	100	2.30	305	550	37	693	38	111	46	1200	372	<2	69
SPS203	8.54	570	10	<0.02	4.5	3.4	35	4.20	53	1100	5	1200	245	109	29	2000	64	<2	663
SPS204	8.44	750	20	<0.02	11.5	10	72	3.10	83	690	5	952	43	142	15	1800	101	<2	155
SPS207	8.96	2000	<10	0.02	4.0	3.4	21	46.00	98	7300	<1	13400	468	1490	213	23000	119	<2	2660
SPS208	3.84	12000	<10	0.07	14.0	250	36	91.00	<2	16000	9	26000	1390	3090	476	48000	<2	<2	4360
SPS210	5.00	10000	10	0.08	5.5	22	31	330.00	3	47000	2	106000	434	11200	1550	180000	3	<2	16000
SPS212	3.81	3500	20	0.02	30.0	29	40	79.00	<2	13000	21	23200	870	2610	394	42000	<2	<2	4950





55	26																		
56	167																		
57	200																		
58	51	125	131																
59	108	124																	
60	199	205	218																
61	2	203																	
62	131	190	203	219															
63	96	125																	
64	9																		
65	1	28	84	104	106	113	119	161	207	209									
66	52	74																	
67	5	8	15	16	24	61	74	80	95	100	102	111	121	124	141				
67	172	174	178	189	193	196	223												
68	58	150																	
69	10	141	168	209	222														
70	176																		
71	20	47	55	58	67	106	131	134	137	142	147	155	198	204	205				
71	219	226																	
72	131																		
73	137																		
74	137																		
75	113																		
76	131																		
77	22	26	72	119	205														
78	198																		
79	56	57	58	67	86	106													
80	22	86																	
81	10	36	63	79	102	121	139	142	151	160	169	171	172	174	178				
81	180	184	189	192	193	194	196	200	206	207	226	227	230						
82	1	13	17	20	86	101	110	125	131	161	176	190	198	207					
83	10	25	27	58	86	88	155	158											
84	49	64	83	85	109	119	138	169	171	196	220								
85	5	36	52	193															
86	13																		
87	150																		
88	220																		
89	2	10	26	51	55	57	68	84	86	88	91	152	155	158	161				
89	167	169	173	182	193	198	222	224											
90	22	126	137																
91	7	11	19	22	25	50	54	61	97	101	105	114	125	127	128				
91	131	136	137	140	175	178	182	204	210	213	219								
92	20	84	155	224															
93	200	204																	
94	56	57	97	106	175	182													
95	207																		
96	65	86	117	127	138	146	160	174	200										
97	123	126																	
98	137																		
99	46																		
100	11	22	26	97	113	203													
101	147																		
102	40	62	64	86	117	134	138	142	170	200	212	214							
103	181	215																	
104	101	131	134	156	165	198	199	219	222	225									
105	209																		
106	13	131	147																
107	114	117																	
108	142																		
109	18	54	86	133															
110	149	175	197	198	199														
111	131																		
112	224																		
113	147																		
114	131																		
115	105																		
116	137																		
117	119	128	187																
118	13	17	19	22	26	46	54	55	83	85	97	101	109	131	134				
118	147	156	158	190	198	203	209	225											
119	212																		
120	137	205	219																
121	11	199																	
122	13	105	106	119	125	128	131	137	147	187									
123	84																		
124	20																		
125	213																		
126	2	7	11	17	22	26	51	54	55	61	84	86	91	105	106				













470	1	11	77	82	101	149	187	197	199	204	207						
471	204																
472	131																
473	7	22	54	55	101	121	126	137	156								
474	13	68	126	205	219												
475	1	11	20	26	40	134	138	142	143	147	212	224					
476	215																
477	104																
478	101	149	197	198													
479	13	26	31	53	131	147	202	205									
480	160																
481	31																
482	7	11	13	125													
483	5	37	146														
484	1	18	19	20	25	26	27	40	60	62	66	96	114	134	138		
484	161	220	224														
485	2	10	199	204													
486	110																
487	7	13	22	54	126	131	136	156	214								
488	5	7	10	11	14	18	19	20	22	30	31	47	54	55	60		
488	62	79	80	95	97	105	114	117	125	126	127	128	131	134	137		
488	138	140	142	143	147	150	155	156	158	164	183	185	202	203	210		
488	214	220	226														
489	135	144															
490	4	6	8	14	16	21	24	32	35	38	40	76	78	85	90		
490	92	100	124	130	141	144	145	151	154	157	159	164	166	174	178		
490	179	180	184	185	186	192	194	200	217	223	227						
491	12	38	39	42	44	45	81	94	103	107	111	112	116	132	163		
491	170	188	191	228													
492	189																
493	153																
494	1	13	22	31	46	50	54	55	84	86	114	128	140	172	204		
494	205	213	219														
495	2	10	17	18	26	40	41	60	66	72	77	83	87	88	93		
495	96	101	104	109	115	117	125	133	147	149	158	167	168	182	185		
495	187	189	190	193	198	202	207	209	217	218	219	222	224	225			
496	46	54	128														
497	71	82	149	162													
498	1	2	10	18	19	27	28	31	33	41	49	56	57	58	60		
498	67	84	86	105	106	117	121	134	152	155	161	183	189	198	199		
498	204	212	214	220	224	226											
499	13	54	215														
500	1	7	13	17	19	20	26	31	41	50	55	67	68	71	72		
500	77	82	84	91	93	97	101	104	105	106	109	114	115	123	125		
500	131	133	140	143	147	149	162	167	175	183	187	197	198	199	202		
500	203	205	207	209	212	213	215	218	219	220	224						
501	190	205															
502	13	26	72	133	213												
503	7	11	13	22	46	54	55	77	93	128	137	156					
504	26																
505	149	198															
506	110																
507	13																
508	3	15	16	29	30	34	40	62	70	79	80	85	95	102	114		
508	134	135	150	164	165	171	178	181	185	188	189	193	195	199	217		
508	221	222	223	225	226												
509	204	205															
510	16	40	92	129	153	171	194	196	223								
511	3	4	5	10	14	15	16	34	35	37	40	60	61	62	65		
511	67	74	79	85	102	123	124	127	134	138	142	144	145	150	160		
511	164	165	217														
512	6	8	16	21	24	32	37	45	78	90	98	100	102	108	129		
512	130	135	151	153	154	157	159	166	174	177	178	180	181	184	189		
512	192	194	200	217	227												
513	38	42	94	103	163	186	227										
514	44	130															
515	42	116	132	148	179	180	195										
516	36	75															
517	108	230															
518	6	81	94	135	170	184	188	191									
519	164																
520	60	83	96	215													
521	175	218															
522	18	83	87	88	114	143	147	183	215	219							
523	1	86	196														
524	184																
525	192																
526	3	29	30	34	40	60	61	62	65	79	80	90	95	114	121		







648	61														
649	27	142	220												
650	211														
651	181														
652	183	220													
653	146	156													
654	47	77	93												
655	7	22	97												
656	1	2	3	4	5	8	10	11	14	15	19	20	22	25	27
656	28	29	30	32	33	34	36	37	47	49	50	55	56	58	59
656	60	61	62	63	64	65	67	68	70	78	79	80	83	84	86
656	95	98	104	105	106	108	114	117	121	123	124	127	128	133	134
656	135	136	137	138	139	141	142	143	145	146	150	151	152	155	156
656	157	158	160	161	164	165	180	181	185	200	210	212	213	214	215
656	216	217	224	225	226										
657	146														
658	7	22	126	127	137										
659	5	123	146												
660	97	226													
661	5	146	160												
662	4	14	16	21	24	32	35	75	78	90	92	123	124	135	145
662	153	154	157	159	160	166	177	186	191	200	221	223	224		
663	97	133	143	144	146	147	160	183	184	189	211	215	218		
664	5	25	33	36	123	146									
665	20	53	59	67	96										
666	11	55	134	138											
667	22	25	27	28	33	54	126	127	128	136					
668	214														
669	49														
670	6	67	112	117	131	160	186	225	226						
671	11	13	30	62	114	127	131	134	136	142	150	165	226		
672	31	41	54	55	83	104	117	140	209	213	218	219			
673	10	22	72	79	84	113	172	190	198	202	205	224			
674	225														
675	54	137													
676	210														
677	219	220													
678	18	19	20	41	47	52	55	56	60	105	106	115	152	155	183
678	198	199	210	213	216	220	222	224							
679	10	30	182												
680	11	22	54	55	126	127	128	131	134	136					
681	2	10	11	17	18	22	26	30	41	51	52	53	56	57	58
681	61	64	66	67	68	70	71	77	82	83	87	88	91	93	101
681	105	106	109	110	113	115	117	119	126	128	140	143	147	149	151
681	161	162	165	167	168	169	171	172	173	175	176	182	185	187	189
681	190	193	198	199	205	207	208	209	213	216	218	219	221	224	225
682	2	28	33	59	60	61	67	70	83	97	105	134	136	149	162
682	183	215	224												
683	10	11	56	97	105	128									
684	93	149	198												
685	41	56	61	77	93	162	175	224							
686	101	187													
687	84	114	131	162	199	207	214	219							
688	40	110													
689	21	79													
690	190														
691	1	2	3	17	18	20	30	41	49	51	52	53	55	58	59
691	60	65	66	68	72	87	88	95	101	109	110	113	115	117	119
691	149	151	161	165	167	169	171	172	182	185	187	189	190	193	198
691	199	207	224	225											
692	11	46	61	137	140	151									
693	54	57	70	84	96	97	105	127	128	142	143	145	147	175	204
693	209	213	216	218	219										
694	128														
695	126														
696	2	10	11	17	18	19	20	26	41	47	51	52	53	57	58
696	59	60	66	68	70	77	82	84	88	91	93	101	104	106	109
696	115	117	143	149	150	155	161	167	171	182	187	189	193	198	207
696	209	225													
697	7	22	25	31	59										
698	54														
699	1	27	28	46	50	55	56	63	64	67	71	72	83	95	105
699	110	125	128	131	134	140	162	168	172	175	176	190	199	204	205
699	219	222	224												
700	54	126	136	137											
701	3	8	9	14	21	24	25	28	29	30	32	34	35	36	37
701	49	52	53	56	57	58	60	61	63	64	67	68	70	78	80
701	83	85	91	101	104	108	115	117	121	123	127	129	134	138	141







814	117																
815	3	10	25	29	47	51	58	60	68	70	88	106	109	121	123		
815	139	155	165	172	187	199	204	205	213	215							
816	20	27	33	36	50	57	58	59	63	67	84	91	99	104	134		
816	142	150	158	168	169	171	176	220	225								
817	167																
818	26	56	82	138	169	203											
819	18	95	106	212													
820	28	31	109														
821	28																
822	31	151	199	224													
823	61																
824	130	160															
825	37	47	64	75	77	93	101	120	129	138	142	146	149	150	151		
825	152	160	169	182	197	198	199	205	212	215	221						
826	85	93	190														
827	26	46	82	83	158	161											
828	199																
829	183																
830	25	27	28	31	33	138	183	202	212	214	215						
831	53																
832	28																
833	27	28	56	57	96	97	143	147	151	167	173						
834	51	56	64	88	91	95											
835	128																
836	14	22	30	36	38	39	42	44	47	48	50	62	65	68	78		
836	79	80	81	90	91	103	104	112	115	121	124	129	134	135	137		
836	140	141	142	145	148	150	151	153	155	156	157	158	160	162	163		
836	164	166	177	179	180	182	184	186	188	189	191	192	194	195	199		
836	200	201	202	206	210	212	215	220	222	227	230						
837	1	2	3	5	10	14	16	17	18	19	20	25	26	28	30		
837	31	32	33	34	36	52	60	64	70	74	80	83	91	98	109		
837	113	115	117	121	124	130	146	150	152	158	160	164	168	169	171		
837	172	177	178	184	190	191	192	193	196	200	205	206	210	211	212		
837	215	217	218	221	222	223	224										
838	28	50	96	114	123	128	137	145	158								
839	3	5	124	150	157	196	197	199	208	215	222	227					
840	24	28	29	30	36	38	42	44	50	55	58	61	64	66	70		
840	76	79	85	87	92	93	94	119	120	123	129	130	131	136	140		
840	143	144	151	152	163	167	169	172	176	177	178	180	182	184	187		
840	188	189	190	192	206	207	209	218	221	223	225						
841	38	119	126	129	138	147	151	156	158	160	163	173	184	190	215		
841	218	230															
842	31	128	131	172	183	205	225										
843	13	37	41	46	56	83	97	98	135	162	169	177	189	196	199		
843	205	215	216	218	230												
844	3																
845	18	41	115														
846	5	40	70	82	90	101	125	128	169	172	177	204	205				
847	5	14	25	30	33	34	40	51	59	60	61	62	64	65	70		
847	78	79	80	84	85	86	95	98	100	102	108	119	120	121	123		
847	124	129	130	135	138	141	150	151	154	158	160	164	165	172	174		
847	177	179	181	184	185	186	191	192	193	194	196	197	206	208	225		
848	10	36															
849	54	156															
850	14	65	70	76	79	80	86	90	124	129	130	141	151	154	159		
850	160	174	179	180	188	191	205	210	211								
851	119	164	165	171	178	181	182	186									
852	9	12	38	42	45	48	73	76	78	96	107	117	120	129	135		
852	140	146	148	151	157	160	179	188	191	211	213	223					
853	73																
854	14	24	147	168													
855	84	139	196														
856	118	184															
857	61																
858	92	114															
859	124	139															
860	206																
861	89	147	148	164	166	173	198	212	217	220							
862	56																
863	23	36	38	45	61	78	100	123	124	128	129	130	139	146	150		
863	152	155	158	179	180	184	200	223									
864	20	41	68	220													
865	1	2	3	4	5	6	8	10	11	14	15	16	17	20	22		
865	25	26	27	28	29	30	32	33	34	36	38	41	46	47	49		
865	51	52	53	56	57	58	59	60	63	64	65	66	68	70	71		
865	74	79	80	82	83	85	86	87	90	92	95	96	97	98	99		
865	100	102	104	106	109	111	113	115	117	121	123	124	125	133	134		

865	135	138	141	142	145	146	150	151	155	158	160	161	165	166	167
865	168	169	172	174	175	176	177	178	180	181	182	183	184	189	190
865	191	192	193	194	195	196	198	199	200	204	205	207	208	209	211
865	212	215	216	217	218	219	220	221	222	223	224	225	226	227	230
866	1	3	5	10	19	20	26	30	40	47	50	55	61	62	64
866	66	67	68	72	84	95	101	105	106	109	113	114	133	134	143
866	155	156	158	161	167	169	171	172	175	176	185	189	193	204	205
866	209	210	213	214	218	222	226								
867	126	127	128	156	210										
868	1	2	17	20	22	26	28	41	46	47	50	54	59	71	72
868	82	84	104	106	109	115	128	167	168	169	176	182	187	190	193
868	198	199	204	205	207	209	213	214	216	218	219	225			
869	1	7	10	11	13	17	19	20	22	26	27	30	31	33	36
869	41	47	50	54	55	56	58	61	67	68	77	84	97	105	106
869	117	119	121	126	133	134	137	140	143	155	156	167	183	202	204
869	205	210	212	215	218	224	226								
870	140	215													
871	133	215	220												
872	82														
873	125														
874	126	131	136	137	156										
875	13	125	149												
876	87	93	101	123	129	143	145	187	202	207	212	214	215	219	
877	59	220													
878	13	17	22	27	47	49	50	54	55	56	60	61	67	91	97
878	128	131	133	156	173	182	183	199	204	205	210	215	218	224	226
879	27	28	31	183	214	215									
880	7	18	19	20	25	26	31	41	50	51	54	55	56	62	67
880	68	84	91	95	97	104	105	106	113	114	117	119	121	126	127
880	128	131	134	136	137	138	139	140	142	143	147	155	156	158	204
880	212	224													
881	2	27	28	68	95	106	212	220							
882	17	27	28	31											
883	18														
884	22	71	134												
885	69														
886	77	93	101	149	162	197									
887	77	198	199	205	219										
888	60	143	215												
889	41	84	158												
890	22	31	54	55	56	61	64	133	137	142	155	156	158	214	224
891	82	101													
892	212														
893	46	58	62	87	96	131	140	167	176	204	218				
894	46														
895	46														
896	26														
897	71	82	149												
898	27	61	63	123	129	130	141	146	151	158	223				
899	143	207													
900	128	156	158												
901	55	61	142	151	158										
902	61	62	114	151											
903	143														
904	96	202													
905	46	54	79	110	123	125	146	160	183	202	214	215			
906	135	150	211												
907	125	207													
908	136														
909	9	99	108	228											
910	202	215													
911	183														
912	7														
913	119														
914	26	27	28	51	56	58	59	104	115	133	155	167	220		
915	6	24	32	34	35	37	45	53	58	74	75	79	85	92	99
915	102	116	122	124	129	130	135	141	142	148	151	154	160	170	174
915	177	178	179	180	184	186	189	191	192	194	200	206	211	217	221
915	223	227	230												
916	7	10	11	20	22	41	47	50	55	60	64	68	71	84	91
916	93	95	109	115	128	131	133	137	156	158	167	187	190	199	207
916	219	222													
917	1	3	5	13	15	17	18	19	25	26	27	28	29	30	31
917	33	34	36	40	41	47	49	52	53	56	57	58	60	61	62
917	63	64	65	67	68	70	72	79	80	83	86	87	90	93	95
917	96	99	100	102	105	109	114	115	117	121	123	127	133	134	138
917	142	143	146	150	158	161	162	164	165	166	167	168	169	171	172
917	173	175	176	178	181	182	183	184	189	190	192	193	194	195	196





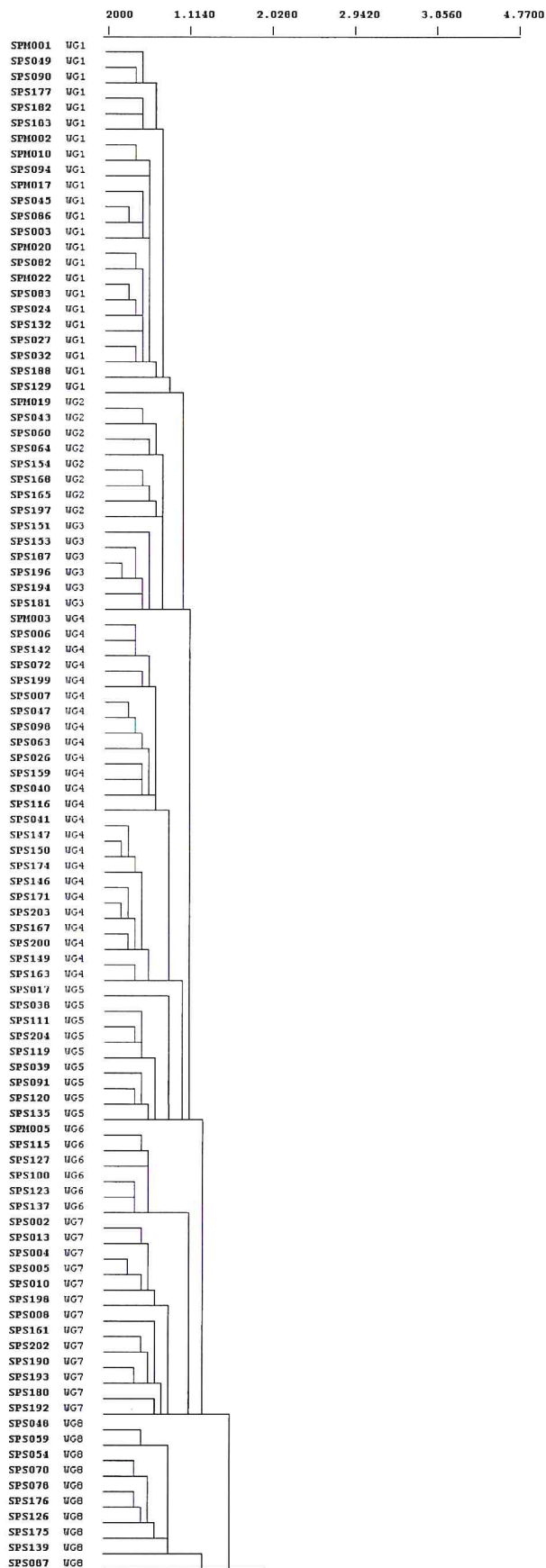


1014	31	183														
1015	22	46	55	82	131	137	156	158	212	221	226					
1016	1	2	13	17	19	20	26	30	33	34	47	49	50	55	56	
1016	58	59	60	63	64	68	70	71	72	77	86	91	102	106	109	
1016	113	115	121	126	133	168	169	172	176	181	189	193	195	199	204	
1016	205	207	210	212	215	218	222	223	225							
1017	171	185														
1018	27	28	59													
1019	220															
1020	22	50	55	137												
1021	13	17	26	47	50	55	59	68	71	77	82	91	115	133	167	
1021	169	172	176	187	196	204	205	210	215	219						
1022	52	58	82	222												
1023	212															
1024	26	27	28	33	36	47	50	52	55	56	58	59	60	64	67	
1024	68	71	104	106	109	115	121	133	138	155	165	167	168	169	172	
1024	197	210	212	213	215	220										
1025	53	156														
1026	212															
1027	28															
1028	1	2	5	10	17	19	20	25	26	27	30	31	33	36	41	
1028	47	49	50	52	55	56	58	59	60	67	68	70	71	72	77	
1028	82	84	86	93	95	97	101	102	105	106	109	113	114	115	117	
1028	121	133	134	138	152	155	158	161	165	167	168	169	171	172	175	
1028	176	178	181	182	183	185	189	193	195	196	197	198	199	200	202	
1028	203	204	205	207	209	212	213	214	215	216	218	220	222	224	225	
1029	7	22														
1030	54															
1031	7															
1032	7	22	28	31	49	55	59	84	155	205						
1033	46															
1034	28															
1035	28	202	212													
1036	27	28														
1037	22	54	126	127	136	137	156									
1038	22	54	126	137	156											
1039	126															
1040	10	20	25	28	47	58	59	67	152	155	213					
1041	126															
1042	7	136														
1043	3	5	26	28	36	47	55	58	59	60	61	67	106	117	121	
1043	133	150	152	155	165	220	226									
1044	126															
1045	22	126	137													
1046	2	5	10	17	20	25	27	28	31	33	36	41	47	49	50	
1046	51	52	53	55	56	58	59	60	64	66	67	68	72	82	84	
1046	95	104	106	109	115	117	133	134	137	150	155	165	167	168	169	
1046	171	175	185	190	193	198	199	204	207	209	210	213	215	219	220	
1046	222	224	225													
1047	123	135	138	141	142	146	160									
1048	220															
1049	2	10	13	17	18	19	20	25	26	28	36	41	47	51	52	
1049	55	56	58	59	63	64	66	68	70	71	72	82	83	84	86	
1049	91	101	104	105	106	109	113	115	117	121	133	142	149	155	167	
1049	168	169	171	172	175	176	182	185	187	189	190	193	196	197	198	
1049	199	202	203	204	205	207	209	210	215	216	218	219	220	221	222	
1049	224	225														
1050	7	31	97													
1051	53															
0																
SPM001	SPM002	SPM003	SPM004	SPM005	SPM006	SPM007	SPM008	SPM009	SPM010							
SPM011	SPM012	SPM013	SPM014	SPM015	SPM016	SPM017	SPM019	SPM020	SPM022							
SPM023	SPM024	SPM025	SPS001	SPS002	SPS003	SPS004	SPS005	SPS006	SPS007							
SPS008	SPS009	SPS010	SPS011	SPS012	SPS013	SPS014	SPS015	SPS016	SPS017							
SPS018*	SPS019	SPS020	SPS021	SPS022	SPS023	SPS024	SPS025	SPS026	SPS027							
SPS028*	SPS029*	SPS030*	SPS031	SPS032	SPS033*	SPS034*	SPS035*	SPS036*	SPS037*							
SPS038	SPS039	SPS040	SPS041	SPS042	SPS043	SPS044*	SPS045	SPS046	SPS047							
SPS048	SPS049	SPS050	SPS051	SPS052	SPS053	SPS054	SPS055	SPS056	SPS057							
SPS058	SPS059	SPS060	SPS061*	SPS062	SPS063	SPS064	SPS065*	SPS066	SPS067							
SPS068*	SPS069	SPS070	SPS071	SPS072	SPS073*	SPS074	SPS075	SPS076	SPS077							
SPS078	SPS079	SPS080	SPS081*	SPS082	SPS083	SPS084	SPS085	SPS086	SPS087							
SPS088	SPS089	SPS090	SPS091	SPS092*	SPS093	SPS094	SPS095	SPS096	SPS097							
SPS098	SPS099	SPS100	SPS101	SPS102	SPS103	SPS104	SPS105	SPS106	SPS107							
SPS108	SPS109	SPS110*	SPS111	SPS112	SPS113	SPS114	SPS115	SPS116	SPS117							
SPS018	SPS119	SPS120	SPS121	SPS122	SPS123	SPS124	SPS125	SPS126	SPS127							
SPS128	SPS129	SPS130	SPS131	SPS132	SPS133	SPS134	SPS135	SPS136	SPS137							
SPS138*	SPS139	SPS140	SPS141	SPS142	SPS144	SPS145*	SPS146	SPS147	SPS148							
SPS149	SPS150	SPS151	SPS152	SPS153	SPS154	SPS155	SPS156	SPS157	SPS158							

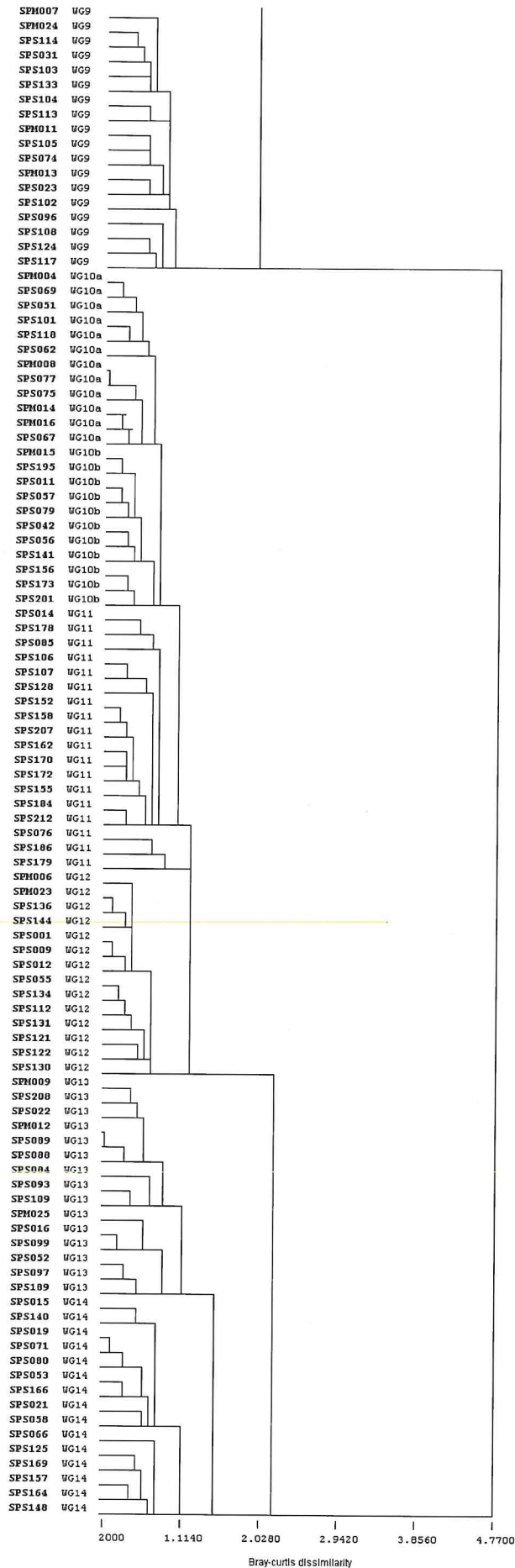
SPS159 SPS160\* SPS161 SPS162 SPS163 SPS164 SPS165 SPS166 SPS167 SPS168  
SPS169 SPS170 SPS171 SPS172 SPS173 SPS174 SPS175 SPS176 SPS177 SPS178  
SPS179 SPS180 SPS181 SPS182 SPS183 SPS184 SPS185\* SPS186 SPS187 SPS188  
SPS189 SPS190 SPS191\* SPS192 SPS193 SPS194 SPS195 SPS196 SPS197 SPS198  
SPS199 SPS200 SPS201 SPS202 SPS203 SPS204 SPS207 SPS208 SPS210 SPS212  
BP010102BP010103BP010105BP010199BP0101A2BP0101A3BP0101A4BP0101A5BP020101BP020199  
BP0201A0BP030101BP030199BP0301A3BP0301A5BP030499BP040101BP040199BP0401A0BP040201  
BP060101BP0901A0BP0901A1IA019999IB010199IB020199IB040101IF410201IF410402IF999999  
IH999999II999999IR999999JB0202A0JB040499JB040699JB0406A0JB0407A0JB040899JB0408A0  
JB041002JB041099JB0410A0JB0410A1JB0410A2JB9999A0JB9999A1JC0206A0JF010103JF010106  
JF020103JF020109JF020110JF0201A0JF030501JF030599JF0305A0JF0305A1JF0305A2JF030603  
JF030604JF030799JF039999JF040101JF040102JF040104JF040105JF040199JF0401A1JF0401A2  
JF050201JF050202JF050204JF050217JF010101JF0101A0JF010201JF0102A0JF020201JF020206  
JF020219JF020220JF020224JF020227JF020228JF020239JF020299JF0202A6JF020301JF020306  
JF020308JF020309JF020312JF020313JF0203A0JF020401JF0204A1JF020503JF0205A0JF020601  
JF0206A0JF030101JF030102JF030201JF030207JF030211JF030224JF030225JF030299JF0302A0  
JF0302A1JF0302A2JF0302A3JF030304JF030405JF040412JF050204JF060101JF060103JF060107  
JF060199JF0601A1JF070101JF070103JF090102JF090110JF090112JF090117JF090119JF090123  
JF090125JF090127JF090129JF090132JF090135JF090136JF090137JF090138JF090148JF090149  
JF090154JF090159JF090169JF090172JF090174JF090187JF090199JF0901A2JF0901A6JF0901A9  
JF0901B0JF0901B1JF0901B2JF0901B3JF0901B4JF0901B6JF0901B8JF0901B9JF0901C1JF120108  
JF120202JF120203JF120299JF120301JF130201JF130202JF130203JF130207JF130228JF1302A0  
JF1302A1JF1302A2JF1302A3JF130301JF130405JF130409JF130507JF130515JF130599JF1305A2  
JF130903JF130999JF150201JF150304JF150306JF150399JF1503A0JF160302JF160314JF160320  
JF160328JF160332JF160336JF160338JF160341JF160399JF1603A0JF1603A2JF1603A4JF1603A4  
JF1603A5JF170201JF170202JF170301JF170401JF180101JF180103JF1801A0KG010199KG021201  
KG060101KG070299KG0702A5KG070399KG070799KG079999KG080101KG090199KG130101KG130102  
KG130103KG130104KG130105KG1301A0KG1301A1KG130299KG150199KP030301KP050101KP060101  
LA999999LH010501LH010599LH010601LH010799LH019999LH030101LH030199LH039999LH0399A0  
LO0302A0LO030502LO030503LO030599LO039999LO040101LO040201LO040301LO040501LO0408A0  
LO041001LO041002LO041003LO041099LO0410A0LO049999LO0499A1LO050104LO050105LO050201  
LO050202LO050203LO050501LO050502LO050503LO050505LO0505A0LO050701LO050702LO050801  
LO0511A0LO059999LO089999LO098999LP020199LP049999LP060199MM010102MM010199MM0101A0  
MM0101A2MM020101MM030199MM050299MM050301MM050601MM050699MM0509A0MM0701A0MM090301  
MM0903A0MM120101MM120102MM120199MM150301MM150302MM1503A0MM160202MM170101MM170302  
MM170303MM170401MM179999MM230101MM230102MM230199MM2301A2MM2301A5MM2301A6MM249999  
MM259999MM9999A1MM9999A2MM9999A10102OD020102OD020103OD020104OD020105OD020108  
OD020199OD0201A1OD0201A2OD0201A6OD0201B0OD030101OD030112OD030113OD030115OD030118  
OD030199OD0301A1OD0301A2OD0301A5OD999999OE010101OE010201OF0102A0OF0102A1OF010399  
OF020199OF0201A0OF0201A2OF020A00OF0202A1OF0203A1OF040199OG010106OG0101A1OG010201  
OG0102A0OG0102A1OG030201OG030202OG030205OG030208OG030210OG030211OG030212OG030213  
OG030214OG030216OG030217OG030225OG030242OG0302A2OG0302A3OG0302A6OG0302B0OG0302B4  
OG0302B5OG0302B6OG0302C8OG0302C9OG0302D1OG0302D2OG0302D3OG030301OG030303OG030401  
OG030701OG030899OG0308A0OG0308A1OG030910OG030999OG0309A0OG0309A1OG031201OG0312A0  
OG031301OG0313A0OG031501OG031601OG031602OG031701OG0317A1OG031802OG0318A2OG0318A3  
OG032301OG032401OG0324A1OG032501OG032502OG032599OG032601OG032701OG0327A0OG0327A1  
OG0327A2OG033001OG033101OG033102OG039999OG040101OG040103OG040199OG0401A0OG0401A1  
OG0401A2OG0401A4OG0401A5OG0401A6OG0401A7OG040201OG040202OG040205OG040206OG040299  
OG0402A0OG0402A4OG0402A6OG0402B0OG040301OG040302OG040303OG040306OG040309  
OG040306OG040399OG0403A0OG040401OG040502OG040505OG040506OG040507OG040599OG0405A1  
OG050101OG050105OG0501A3OG060201OG060202OG060203OG060204OG060206OG060210OG060211  
OG060299OG0602A0OG0602B0OG0602B1OG0602B2OG0602B3OG070101OG070103OG070105OG090301  
OG090302OG0903A0OH010201OH010201OH010203OH010204OH010299OH0102A1OH0102A6OH0102A6  
OH0103A0OH0103A1OH040101OH060101OH060103OH0601A0OH070101OH080101OH080201OH080203  
OH080206OH0802A1OH0802A2OH080301OH080302OH0803A2OH0803A3OH080402OH0804A0OH080501  
OH080599OH0805A0OH0805A1OH0805A2OH0805A3OH0805A7OH0805B2OH080602OH080603OH080701  
OH080703OH080704OH080705OH080706OH080707OH080799OH0807A0OH0807A3OH0807A4OH080801  
OH081002OH081003OH081004OH081099OH0810A1OH081201OH081208OH081501OH081505OH081599  
OH0815A0OH0815A2OH0815A3OH0815A5OH0815A6OH0817A0OH081801OH081901OH081902OH081903  
OH081906OH081999OH0819A2OH0819A3OH0819A4OH0819A5OH0819A7OH0819B1OH082101OH082102  
OH0821A0OH0821A3OH0821A4OH0821A5OH0821A8OH082301OH0823A1OH082501OH082601OH089999  
OH090101OH0901A1OH0901A3OH0901A4OH100101OH100102OH110101OH110199OH1101A0OH1101A1  
OH110201OH1102A0OJ110101OJ110104OJ110108OJ110113OJ110118OJ110120OJ110199OJ1101A1  
OJ1101A2OJ110202OJ110203OJ110208OJ110209OJ110211OJ1102A0OJ1102A1OJ1102A2OJ110401  
OJ130101OJ199999OJ310101OJ310299OJ3102A0OJ3102A1OJ3102A2OJ3102A3OJ3102A4OJ3102A5  
OJ3102A6OJ3102A7OJ3102A8OJ3102A9OJ310301OJ310302OJ310303OJ3104A0OJ310601OJ310701  
OJ310703OJ311001OJ311020OJ311199OJ3111A1OJ3111A2OJ311201OJ311701OJ319999OJ3199A1  
OJ610101OJ6101A0OJ610302OJ610303OJ610399OJ6103A1OJ610402OJ619999OJ6199A0OJ6199A1  
OJ6199A2OJ6199A3OJ6199A4OJ6199A5OJ6199A6OJ6199A7OJ6199A8OJ620101OJ6299A0OJ630201  
OJ630299OJ6302A0OJ6399A0OJ6401A0OJ6401A1OJ6401A2OJ6401A3OJ6401A4OJ6401A5OJ6401A6  
OJ640299OJ669999OJ699999OJ6999A5OJ6999B0OJ620102OJ650399OJ680199OJ690402OJ6R010101  
OR130299OR250101OR279999OT020201OV010101OV010113OV010116OV010121OV010199QC059999  
QC060104QC060105QC060199QC069999QC070199QC080399QC090101QC090401QC090499QC090701  
QC091101QC091205QC091206QC091405QC091407QC091408QC091499QC0914A0QC0914A1QC0914A2  
QC091603QC091604QC091699QC0916A0QC0916A1QC091805QC091809QC091812QC091899QC0918A0  
QC092001QC092002QC092006QC092009QC092099QC092103QC092107QC092199QC092207QC092209  
QC092299QC092301QC092399QC092401QC092499QC092713QC092715QC092799QC092802  
QC092899QC092901QC092999QC093302QC093401QC093499QC093602QC0999A6QC100105QC100201

QC100301QC109999QC110401QC110404QC110406QC110409QC110416QC110417QC110418QC110421  
QC110499QC110601QC110602QC110904QC111101QC111102QC111103QC111199QC111202QC111203  
QC111204QC111401QC111601QC119999QC130101QC130116QC130399QC1304A0QC1304A1QC1304A2  
QC1305A0QC189999QC209999QC359999QC369999QCA00106QCA00117QCAN9999QD019999QD0199A0  
QD0199A1QD0199A2QD0199A4QD0199A5QD0199A6QD0199A7QD0199A8QD050201QD070101QD070501  
QD070502QD070503QD070504QD070505QD070506QD070599QD0705A0QD0705A1QD0705A2QD0705A4  
QD0705A5QD070706QD070707QD070708QD070799QD0707A0QD0707A1QD0707A2QD0707A3QD0708A0  
QD079999QD090499QD0904A0QD0904A1QD090699QD0906A0QD0906A1QD090899QD091999QD0919A0  
QD0919A1QD0919A2QD0919A3QD092099QD0920A0QD0920A1QD0920A2QD0927A0QD092899QD0928A0  
QD0928A1QD0928A2QD0928A3QD0928A4QD092999QD099999QD0999A0QD0999A1QD100102QD100202  
QD129999QD1299A0QD1299A1QD1299A2QD1299A3QD239999QD249999QD359999QD369999QD3699A0  
QD3699A1QD439999QD459999QD789999QD7899A5QD7899A6QD7899A7QD7899A8QD7899A9QD7899B0  
QD899999QD8999A0QD8999A1QD8999A2QD8999A3QD8999A7QD8999A8QD8999A9QD8999B0QD8999B1  
QD999999QD9999A0QD9999A1QDAE0201QDAE0803QDAE0804QDAE1001QDAE1102QDAE1201QDAE12A0  
QDAE17A0QDAE99A0QDAE99A2QDAE99A3QDAE99A5QDAF03A0QDAF04A0QDAF0699QDAF07A0QDAF1202  
QDAF1501QDAF15A0QDAF15A1QDAF19A0QDAF19A1QDAF21A0QDAF21A1QDAF26A0QDAF26A1QDAF28A0  
QDAF3508QDAF9999QDAF99A0QDAF99A1QDAF99A2QDAF99A3QDAF99A4QDAF99A5QDAF99A6QDAF99A7  
QDAF99A8QDAF99A9QDAF99B0QDAF99B2QDAF99B4QDAF99B5QDAF99B6QDAF99B7QDAF99C0QDAF99C1  
QDAF99C2QDAF99C3QDAF99C4QDAH03A0QDAH0402QDAH0405QDAH0410QDAH0420QDAH0499QDAH04A1  
QDAH04A3QDAH04A4QDAH04A5QDAH04A6QDAH04A7QDAH06A0QDAH06A1QDAH0799QDAH9999QDAI01A0  
QDAI01A1QDAI0408QDAI0414QDAI04A0QDAI05A0QDAI0603QDAI0606QDAI0611QDAI06A0QDAI06A4  
QDAI0701QDAI0703QDAI0801QDAI0804QDAI0810QDAI0899QDAI08A1QDAI08A2QDAI10A0QDAI1701  
QDAI1901QDAI2201QDAI24A0QDAI25A0QDAI99A0QE020299QE029999QE080101QH530101QH5399A0  
QH540199QH560101QH560103QH560199QH570399QH600201QH600299QH609999QH640105QH640199  
QH650101QH650199QH650204QH650206QH650299QH650301QH650302QH650303QH650399QH650502  
QH650503QH650505QH650599QH659999QH670401QH670402QH670403QH670405QH670407QH670426  
QH670429QH670499QH670502QH679999QH680101QH680199QH689999QL999999QL9999A1QL9999A2  
QL9999A3QL9999A6QO020505QO021001QO021002QO021301QO050101QO050102QO050103QO050105  
QO050107QO050199QO059999QO070401QO120201QO121201QO129999QO130410QO130411QO170301  
QO170701QO170702QO171302QO171601QO179999QO230101QO300101QO300102QO300202QO999998  
QT030201QT030410QT0304A1QT030503QT031099QT0605A2QT0803A2QT0803A3QT0803A4QT0804A0  
QT089999QT2502A1QT250504QT2505B6QT250605QT250799QT250903QT251099QT251103QT251115  
QT259999

**Appendix 4. Classification of Wheatbelt wetlands using unweighted pair group arithmetic averaging based on Bray-Curtis dissimilarity of community composition, showing wetland groups WG1 to WG14.**







**Appendix 5.** Aquatic invertebrate species and codes (Spcode) used in the compressed data file (Appendix 3). # = taxa merged with indicated nominate species for analyses. 2 = species subsumed within genus for analyses. \* = taxa excluded from the analyses because a) they are higher taxonomic ranks representing specimens that could not be identified (e.g. immatures), b) they undoubtedly represent several unresolved species or c) they are protozoa, which were not consistently excluded from samples.

Taxonomic Group	Name	Spcode	
<b>PROTOZOA</b>			
Arcellidae	Arcella discoidea Ehrenberg, 1871 (*)	BP010102	
	Arcella discoidea scutelliformis Playfair, 1918 (*)	BP010103	
	Arcella megastoma Penard, 1902 (*)	BP010105	
	Arcella sp. b (*)	BP0101A2	
	Arcella sp. c (*)	BP0101A3	
	Arcella sp. d (*)	BP0101A4	
	Arcella sp. (cf. catinus Penard, 1902) (*)	BP0101A5	
	Arcella sp. (*)	BP010199	
	Centropyxidae	Centropyxis aculeata (Ehrenberg, 1830) (*)	BP020101
		Centropyxis sp. b (*)	BP0201A0
		Centropyxis sp. (*)	BP020199
	Diffugiidae	Diffugia gramen Penard, 1902 (*)	BP030101
		Diffugia sp. (cf. parva (Thomas, 1954)) (*)	BP0301A5
		Diffugia sp. b (*)	BP0301A3
Diffugia sp. (*)		BP030199	
Nebelidae	Cucurbitella sp. (*)	BP030499	
	Nebela lageniformis Penard, 1890 (*)	BP040101	
	Nebela sp. (*)	BP040199	
Pseudodiffugiidae	Porosia sp. (cf. bigibossa (Penard, 1890)) (*)	BP0401A0	
	Porosia bigibossa (Penard, 1890) (*)	BP040201	
Euglyphidae	Pseudodiffugia gracilis Schlumberger, 1845 (*)	BP060101	
	Euglypha sp. a (*)	BP0901A0	
	Euglypha sp. b (*)	BP0901A1	
<b>PORIFERA</b>			
Spongillidae	Spongillidae (*)	IA019999	
<b>CNIDARIA</b>			
Hydridae	Hydra sp.	IB010199	
Clavidae	Cordylophora sp.	IB020199	
Australomedusidae	Australomedusa bayllei (Russell, 1970)	IB040101	
<b>PLATYHELMINTHES</b>			
Turbellaria	unidentified turbellarians (*)	IF999999	
Temnocephalidae	Zygopella pista Cannon & Sewell, 1995	IF410201	
	Temnosewellia minor (Haswell, 1888)	IF410402	
<b>NEMERTEA</b>			
	Nemertini (*)	IH999999	
<b>NEMATODA</b>			
	Nematoda (*)	II999999	
<b>ROTIFERA</b>			
Habrotrichidae	Otostephanus sp. (cf. auriculatus (Murray, 1911))	JB0202A0	
	Philodinidae	Dissotrocha sp.	JB040499
Conochilidae	Macrotrachela sp. a	JB0406A0	
	Macrotrachela sp. (*)	JB040699	
	Mniobia sp. (cf. scarlatina (Ehrenberg, 1853))	JB0407A0	
	Philodina sp. a	JB0408A0	
	Philodina sp. (*)	JB040899	
	Rotaria neptunia (Ehrenberg, 1832)	JB041002	
	Rotaria sp. a	JB0410A0	
	Rotaria sp. (cf. rotatoria (Pallas, 1766))	JB0410A1	
	Rotaria sp. b	JB0410A2	
	Rotaria sp. (*)	JB041099	
	Bdelloidea 'small species' (*)	JB9999A0	
	Bdelloidea 'large species' (*)	JB9999A1	
	Conochilus natans (Seligo, 1900)	JF010103	
	Conochilus dossuarius (Hudson, 1885)	JF010106	
	Filiniidae	Filinia pejlerei Hutchinson, 1964	JF020103
		Filinia longiseta (Ehrenberg, 1834)	JF020109
		Filinia australiensis Koste, 1980	JF020110
Flosculariidae	Filinia n. sp.	JF0201A0	
	Flosculariidae (*)	JF039999	
	Ptygura crystallina (Ehrenberg, 1834)	JF030501	
	Ptygura cf. crystallina (Ehrenberg, 1834) (#)	JF0305A1	
	Ptygura cf. melicerta Ehrenberg, 1832	JF0305A0	
	Ptygura sp. a	JF0305A2	
	Ptygura sp. (*)	JF030599	
	Sinantherina semibullata (Thorpe, 1889)	JF030603	
	Sinantherina procera (Thorpe, 1893)	JF030604	
	cf. Sinantherina	JC0206A0	
Flosculariidae	Lacinularia sp.	JF030799	
	Hexarthridae	Hexarthra intermedia (Wiszniewski, 1929)	JF040101
Hexarthra mira (Hudson, 1891)		JF040102	
Hexarthra oxyuris (Sernov, 1903)		JF040104	
Hexarthra fennica (Levander, 1892)		JF040105	
Hexarthra n. sp. a (cf. fennica with 7/7 unci teeth)		JF0401A1	
Hexarthra n. sp. b (cf. fennica with 4/3 unci teeth)		JF0401A2	
Hexarthra sp. (*)		JF040199	

Taxonomic Group	Name	Spcode	
Testudinellidae	Testudinella patina (Hermann, 1783)	JF050201	
	Testudinella insinuata Hauer, 1938	JF050202	
	Testudinella amphora Hauer, 1938	JF050204	
Asplanchnidae	Testudinella tasmaniensis Koste & Shiel 1986	JF050217	
	Asplanchna brightwelli Gosse, 1850	JP010101	
	Asplanchna sp. (cf. sieboldi (Leydig, 1854))	JP0101A0	
	Asplanchnopus multiceps (Schrank, 1793)	JP010201	
	Asplanchnopus n. sp. (Wannara)	JP0102A0	
Brachionidae	Brachionus angularis Gosse, 1851	JP020201	
	Brachionus calyciflorus Pallas, 1766	JP020206	
	Brachionus quadridentatus Hermann, 1783	JP020220	
	Brachionus urceolaris (Müller, 1773)	JP020224	
	Brachionus quadridentatus cluniorbicularis (Skorikov, 1894)	JP020227	
	Brachionus calyciflorus gigantea Koste & Shiel, 1980	JP020239	
	Brachionus rotundiformis (Tschugunoff, 1921)	JP020228	
	Brachionus plicatilis s.l. Müller, 1786	JP020219	
	Brachionus sp. (cf. nilsoni Ahlstrom, 1940)	JP0202A6	
	Brachionus sp. (*)	JP020299	
	Keratella australis Berzins, 1963	JP020301	
	Keratella javana Hauer, 1937	JP020306	
	Keratella procurva (Thorpe, 1891)	JP020308	
	Keratella shieli Koste, 1979	JP020312	
	Keratella slacki (Berzins, 1963)	JP020313	
	Keratella n. sp. (aff. australis group)	JP0203A0	
	Keratella quadrata (Müller, 1786)	JP020309	
	Notholca salina Focke, 1961	JP020401	
	Notholca sp. (cf. squamula Focke, 1961)	JP0204A1	
	Plationus polyacanthoides Berzins, 1943	JP020503	
	Plationus n. sp. ('Goonaping')	JP0205A0	
	Platylabus quadricornis (Ehrenberg, 1832)	JP020601	
	Platylabus n. sp. ('Youlabup')	JP0206A0	
	Lepadellidae	Colurella adriatica Ehrenberg, 1831	JP030101
		Colurella colurus (Ehrenberg, 1832)	JP030102
		Lepadella ovalis (Müller, 1786)	JP030201
		Lepadella amphitropis Haring, 1916	JP030207
		Lepadella biloba (Hauer, 1958)	JP030211
		Lepadella patella (Müller, 1773)	JP030224
		Lepadella sp. (cf. patella (Müller, 1773)) (#)	JP0302A0
		Lepadella patella similis (Lucks, 1912)	JP030225
		Lepadella n. sp? (cf. imbricata Haring, 1916)	JP0302A1
		Lepadella n. sp.	JP0302A2
		Lepadella sp. (cf. rhomboides (Gosse, 1886))	JP0302A3
		Lepadella sp. (*)	JP030299
		Squatinella mutica (Ehrenberg, 1832)	JP030304
		Dicranophoridae	Dicranophorus epicharis Haring & Myers, 1928
Dicranophorus robustus Haring & Myers, 1928			JP040412
Epiphanidae		Epiphanes senta (Müller, 1773)	JP050204
		Euchlanis dilatata Ehrenberg, 1834	JP060101
	Euchlanis dilatata lucksiana Hauer, 1930	JP060107	
	Euchlanis deflexa (Gosse, 1851)	JP060103	
	Euchlanis sp. (cf. meneta Myers, 1930)	JP0601A1	
Gastropodidae	Euchlanis sp. (*)	JP060199	
	Ascomorpha ecaudis (Perty, 1850)	JP070101	
Lecanidae	Ascomorpha saltans Bartsch, 1870	JP070103	
	Lecane aculeata (Jakubski, 1912)	JP090102	
	Lecane bulla Gosse, 1851	JP090110	
	Lecane closterocerca (Schmarda, 1859)	JP090112	
	Lecane curvicornis (Murray, 1913)	JP090117	
	Lecane doryssa Haring, 1914	JP090119	
	Lecane flexilis (Gosse, 1886)	JP090123	
	Lecane furcata (Murray, 1913)	JP090125	
	Lecane grandis (Murray, 1913)	JP090127	
	Lecane hamata Stokes, 1896	JP090129	
	Lecane hornemanni (Ehrenberg, 1834)	JP090132	
	Lecane levistyla (Olofsson, 1918)	JP090135	
	Lecane ludwigii (Eckstein, 1883)	JP090136	
	Lecane luna (Müller, 1776)	JP090137	
	Lecane lunaris (Ehrenberg, 1832)	JP090138	
	Lecane papuana (Murray, 1913)	JP090148	
	Lecane pertica Haring & Myers, 1926	JP090149	
	Lecane quadridentata (Ehrenberg, 1832)	JP090154	
	Lecane signifera (Jennings, 1896)	JP090159	
	Lecane thalera (Haring & Myers, 1926)	JP090169	
	Lecane unguolata (Gosse, 1887)	JP090172	
	Lecane latissima Yamamoto, 1955	JP090174	
	Lecane abanica Segers, 1994	JP090187	
	Lecane sp. (cf. rhenana Hauer, 1929)	JP0901A9	
	Lecane n. sp. a	JP0901B0	
	Lecane n. sp. b	JP0901B2	
	Lecane n. sp. c	JP0901B4	
	Lecane n. sp. d	JP0901B8	
	Lecane halsei Segers & Shiel, 2003	JP0901A2	



Taxonomic Group	Name	Spcode
	Lecane noobijupi Segers & Shiel, 2003	JP0901A6
	Lecane sp. (cf. subtilis Harring & Myers, 1926)	JP0901B1
	Lecane sp. (cf. haliclysta Harring & Myers, 1926)	JP0901B3
	Lecane sp. (cf. bifurca (Bryce, 1892))	JP0901B6
	Lecane ludwigi f. appendiculata (Daday, 1901)	JP0901B9
	Lecane ludwigi f. ichthyoura (Anderson & Shephard, 1892)	JP0901C1
	Lecane sp. (*)	JP090199
Mytilinidae	Mytilina ventralis (Ehrenberg, 1832)	JP120108
	Lophocharis oxystemon (Gosse, 1851)	JP120202
	Lophocharis salpina (Ehrenberg, 1834)	JP120203
	Lophocharis sp. (*)	JP120299
Euchlanidae	Tripleuchlanis plicata (Levander, 1894)	JP120301
	Cephalodella gibba (Ehrenberg, 1832)	JP130201
	Cephalodella gibba microdactyla Koch-Althaus, 1963	JP1302A0
	Cephalodella forficula (Ehrenberg, 1832)	JP130202
	Cephalodella panarista Myers, 1924	JP130203
	Cephalodella catellina (Müller, 1786)	JP130207
	Cephalodella tenuiseta (Burn, 1890)	JP130228
	Cephalodella n. sp. a	JP1302A2
	Cephalodella n. sp. b	JP1302A1
	Cephalodella sp. c	JP1302A3
	Taphrocampa selenura (Gosse, 1887)	JP130301
	Monommata dentata Wulfert, 1940	JP130405
	Monommata maculata Harring & Myers, 1924	JP130409
	Notommata copeus Ehrenberg, 1834	JP130507
	Notommata tripus Ehrenberg, 1838	JP130515
	Notommata n. sp.	JP1305A2
	Notommata sp. (*)	JP130599
	Eosphora najas Ehrenberg, 1830	JP130903
	Eosphora sp. (cf. anthadis Harring & Myers, 1922)	JP130999
Synchaetidae	Polyarthra dolichoptera (Idelson, 1925)	JP150201
	Synchaeta oblonga Ehrenberg, 1832	JP150304
	Synchaeta pectinata Ehrenberg, 1832	JP150306
	Synchaeta n. sp. (cf. oblonga Ehrenberg 1832)	JP1503A0
	Synchaeta sp. (*)	JP150399
Trichocercidae	Trichocerca bicristata (Gosse, 1887)	JP160302
	Trichocerca iernis (Gosse, 1887)	JP160314
	Trichocerca sp. (cf. iernis (Gosse, 1887))	JP1603A3
	Trichocerca longiseta (Schrank, 1802)	JP160320
	Trichocerca rattus (Müller, 1776)	JP160328
	Trichocerca rattus carinata (Ehrenberg, 1830)	JP160341
	Trichocerca similis (Wierzejski, 1893)	JP160332
	Trichocerca tigris (Müller, 1786)	JP160336
	Trichocerca vernalis Hauer, 1936	JP160338
	Trichocerca wanarra Segers & Shiel, 2003	JP1603A0
	Trichocerca n. sp. c	JP1603A2
	Trichocerca sp. (cf. insignis (Herrick, 1885))	JP1603A4
	Trichocerca sp. (cf. weberi Jennings, 1903)	JP1603A5
	Trichocerca sp. (*)	JP160399
Trichotriidae	Trichotria pocillum Muller, 1776	JP170201
	Trichotria tetractis similis Stenroos, 1898	JP170202
	Macrochaetus altimirai (Arealvalho, 1918)	JP170301
	Wolga spinifera (Western, 1894)	JP170401
Scaridiidae	Scaridium bostjani Daems & Dumont, 1974	JP180101
	Scaridium sp. (cf. bostjani Daems & Dumont, 1974)	JP1801A0
	Scaridium longicaudum (Müller, 1786)	JP180103
<b>MOLLUSCA</b>		
<b>(GASTROPODA)</b>		
Bithyniidae	Bithynia n. sp.	KG010199
Ancylidae	Ferrissia petterdi (Johnson, 1897)	KG060101
Planorbidae	Planorbidae (*)	KG079999
	Glyptophysa cf. gibbosa (Gould, 1846)	KG0702A5
	Glyptophysa sp. (*)	KG070299
	Isidorella sp. (*)	KG070399
	Gyraulus sp.	KG070799
Physidae	Physa acuta Draparnaud, 1805	KG080101
Glacidorbidae	Glacidorbis n. sp.	KG090199
Pomatiopsidae	Coxiella striatula (Menke, 1843)	KG130101
	Coxiella gilesi (Angas, 1877)	KG130102
	Coxiella exposita Iredale, 1943	KG130103
	Coxiella glabra Macperson, 1957	KG130104
	Coxiella glauerti Macperson, 1957	KG130105
	Coxiella sp. 1	KG1301A0
	Coxiella sp. 2	KG1301A1
	Coxiella sp. (*)	KG130299
Hydrobiidae	Ascorhis occidua Ponder & Clark, 1988	KG021201
Succineidae	Austrosuccinea sp.	KG150199
<b>MOLLUSCA (BIVALVIA)</b>		
Sphaeriidae	Musculium kendricki (Kuiper, 1983)	KP030301
Trapeziidae	Fluviolanatus subtorta (Laseron, 1956)	KP050101
Galeommatidae	Arthritica semen (Menke, 1843)	KP060101



Taxonomic Group	Name	Speode
<b>APHANONEURA</b>		
Aeolosomatidae	Aeolosoma sp. (*)	LA999999
<b>HIRUDINEA</b>		
Glossiphoniidae	Glossiphoniidae (*)	LH019999
	Alboglossiphonia intermedia (Goddard, 1909) (2)	LH010501
	Alboglossiphonia sp. (*)	LH010599
	Helobdella papillornata Govedich & Davies, 1998	LH010601
	Placobdelloides sp.	LH010799
Hirudinidae	Hirudinidae (*)	LH039999
	Bassianobdella fusca Richardson, 1972 (2)	LH030101
	Bassianobdella sp. (*)	LH030199
	Hirudinidae n. sp.	LH0399A0
<b>OLIGOCHAETA</b>		
Phreodrilidae	Phreodrilidae (*)	LO039999
	Astacopsidrilus n. sp. WA21	LO0302A0
	Insulodrilus sp.	LO030599
	Insulodrilus bifidus Pinder & Brinkhurst, 1997	LO030503
	Insulodrilus lacustris	LO030502
Tubificidae	Tubificidae (*)	LO049999
	Tubifex tubifex (Müller, 1773)	LO040101
	Limnodrilus hoffmeisteri Claparede, 1862	LO040201
	Potamothrix bavaricus Vejvodsky & Mrazek, 1902	LO040301
	Antipodrilus sp. (cf. davidis (Benham, 1907))	LO040501
	Rhyacodrilinae n. sp. WA11	LO0408A0
	Ainudrilus nharna Pinder & Brinkhurst, 2000	LO041001
	Ainudrilus angustivasa Pinder & Halse, 2001	LO041002
	Ainudrilus ngopitchup Pinder & Halse, 2001	LO041003
	Ainudrilus sp.	LO041099
	Ainudrilus sp. d ('Arro')	LO0410A0
Naididae	Tubificidae WA9	LO0499A1
	Naididae (*)	LO059999
	Nais variabilis Piguët, 1906	LO050104
	Nais communis Piguët, 1906	LO050105
	Dero digitata (Müller, 1773)	LO050201
	Dero nivea Aiyer, 1929	LO050202
	Dero furcata (Müller, 1773)	LO050203
	Pristina longiseta Ehrenberg, 1828	LO050501
	Pristina aequiseta Bourne, 1891	LO050502
	Pristina proboscidea Beddard, 1896	LO050503
	Pristina jenkiniae (Stephenson, 1931)	LO050505
	Pristina sp. (cf. sima (Marcus 1944))	LO0505A0
	Chaetogaster diastrophus (Gruithuisen, 1828)	LO050701
	Chaetogaster diaphanus (Gruithuisen, 1828)	LO050702
	Paranais litoralis Czerniavsky, 1880	LO050801
	Bratislavia n. sp. WA1	LO0511A0
Enchytraeidae	Enchytraeidae (*)	LO089999
	Opisthopora (Earthworms) (*)	LO989999
<b>POLYCHAETA</b>		
Capitellidae	Capitella sp.	LP020199
Serpulidae	Serpulidae	LP049999
Sabellidae	Manayunkia n.sp.	LP060199
<b>TARDIGRADA</b>		
<b>ARACHNIDA</b>	unidentified tardigrades (*)	IR999999
<b>(ACARIFORMES)</b>		
	Hydrachna australica Lundblad, 1941	MM010102
	Hydrachna nr. approximata Halik, 1940	MM0101A0
	Hydrachna (Hydrachna) sp. a	MM0101A2
	Hydrachna sp. (*)	MM010199
Limnocharidae	Limnochara australica Lundblad, 1941	MM020101
Eylaidae	Eylais sp.	MM030199
Hydryphantidae	Diplodontus sp.	MM050299
	Hydryphantes meridianus Lundblad, 1947	MM050301
	Pseudohydryphantes doegi Harvey, 1987 (2)	MM050601
	Pseudohydryphantes sp.	MM050699
	Austrotrombella n. sp.	MM0509A0
Hydrodromidae	Hydrodroma sp. b	MM0701A0
Oxididae	Oxus australicus Lundblad, 1947	MM090301
	Oxus sp. a	MM0903A0
Limnesiidae	Limnesia dentifera Viets, 1980	MM120101
	Limnesia solida Lundblad, 1947	MM120102
	Limnesia sp. (*)	MM120199
Hygrobatidae	Australiobates violaceus Lundblad, 1941	MM150301
	Australiobates hygrobatoides Smit, 2001	MM150302
	Australiobates sp. 1 (SAP)	MM1503A0
Unionicolidae	Koenikea verrucosa Lundblad, 1941	MM160202
Pionidae	Pionidae (*)	MM179999
	Acercella falcipes Lundblad, 1941	MM170101
	Piona cumberlandensis (Rainbow, 1906)	MM170302
	Piona murleyi Harvey, 1996	MM170303
	Larri laffa Harvey, 1996	MM170401
Arrenuridae	Arrenurus balladoniensis Halik, 1940	MM230101

Taxonomic Group	Name	Spcode
	Arrenurus australicus Lundblad, 1941	MM230102
	Arrenurus (Truncaturus) sp.	MM2301A2
	Arrenurus (Micruracarus) sp. 1	MM2301A5
	Arrenurus sp. 7	MM2301A6
	Arrenurus sp. (*)	MM230199
Halacaridae	Halacaridae (*)	MM249999
Pezidae	Pezidae (*)	MM259999
Oribatida	unidentified oribatids	MM9999A1
Trombidioidea	unidentified trombidoids	MM9999A6
<b>ARACHNIDA</b>		
<b>(PARASITIFORMES)</b>		
Mesostigmata	unidentified Mesostigmata (*)	MM9999A2
<b>ANOSTRACA</b>		
	unidentified anostraca (*)	OD999999
Artemiidae	Artemia parthenogenetica Bowen & Sterling, 1978	OD010102
Branchiopodidae	Parartemia contracta Linder, 1941	OD020102
	Parartemia serventyi Linder, 1941	OD020103
	Parartemia cylindifera Linder, 1941	OD020104
	Parartemia informis Linder, 1941	OD020105
	Parartemia longicaudata Linder, 1941	OD020106
	Parartemia longicaudata Linder, 1941 (subspecies a)	OD0201A1
	Parartemia n. sp. 2 ('Scadden')	OD0201A2
	Parartemia n. sp. 4 ('Frank Hann')	OD0201A6
	Parartemia n. sp. 7 ('Decourcy')	OD0201B0
	Parartemia sp. (*)	OD020199
Thamnocephalidae	Branchinella affinis Linder, 1941	OD030101
	Branchinella longirostris Wolf, 1911	OD030112
	Branchinella lyrifera Linder, 1941	OD030113
	Branchinella occidentalis (Dakin, 1914)	OD030115
	Branchinella simplex Linder, 1941	OD030118
	Branchinella kadjikadji Timms 2002	OD0301A1
	Branchinella complexidigitata Timms 2002	OD0301A2
	Branchinella halsei Timms 2002	OD0301A5
	Branchinella sp. (*)	OD030199
<b>NOTOSTRACA</b>		
Triopsidae	Triops australiensis australiensis (Spencer & Hall, 1896)	OE010101
	Lepidurus apus viridis Baird, 1850	OE010201
<b>CONCHOSTRACA</b>		
Cyzicidae	Caenestheria n. sp. a (nr. lutraria)	OF0102A0
	Caenestheria sp. 1	OF0102A1
	Caenestheriella sp.	OF010399
Limnadiidae	Limnadia sp. 1 (nr badia Wolf, 1911)	OF0201A0
	Limnadia sp. 3	OF0201A2
	Limnadia sp. (*)	OF020199
	Eulimnadia sp. 1	OF0202A0
	Eulimnadia sp. 2	OF0202A1
	Limnadopsis nr. parvispina Henry, 1924	OF0203A1
Lyncaeiidae	Lynceus sp.	OF040199
<b>CLADOCERA</b>		
Sididae	Diaphanosoma unguiculatum Gurney, 1927	OG010106
	Diaphanosoma sp. (cf. sarsi Richard 1894)	OG0101A1
	Latonopsis brehmi Petkovski, 1973	OG010201
	Latonopsis n. sp. (cf. australis Sars 1888)	OG0102A0
	Latonopsis cf. brehmi Petkovski, 1973	OG0102A1
Chydoridae	Chydoridae (*)	OG039999
	Alona cambouei Guerne & Richard 1893	OG030201
	Alona diaphana King, 1853	OG030202
	Alona sp. (cf. diaphana King 1853) (#)	OG0302A3
	Alona diaphana vermiculata Smirnov & Timms, 1983	OG030208
	Alona diaphana iheringi Richard, 1897	OG030242
	Alona rectangula novaezealandiae Sars, 1904	OG030205
	Alona clathrata Sars, 1888	OG030211
	Alona rigidicaudis s.l. (Smirnov, 1971)	OG030212
	Alona affinis (Leydig, 1860)	OG030213
	Alona n. sp.? (nr. affinis Leydig, 1860)	OG0302B0
	Alona setigera (Brehm, 1931)	OG030214
	Alona longinqua (Smirnov, 1971)	OG030210
	Alona macrocopa Sars, 1895	OG030216
	Alona willisi (Smirnov, 1989)	OG030217
	Alona guttata Sars, 1862	OG030225
	Alona sp. (cf. costata Sars, 1862)	OG0302A2
	Alona n. sp. b	OG0302A6
	Alona n. sp. c	OG0302B4
	Alona rectangula Sars, 1862	OG0302B5
	Alona sp. (cf. rusticoides Smirnov & Timms, 1983)	OG0302B6
	Alona n. sp. d	OG0302C8
	Alona sp. (cf. pulchella King, 1853)	OG0302C9
	Alona n. sp. e (cf. pulchella King 1853)	OG0302D1
	Alona n. sp. f	OG0302D2
	Alona n. sp. g	OG0302D3
	Alonella clathratula Sars, 1896	OG030301
	Alonella sp. (cf. exigua (Lilljeborg, 1853))	OG0303C8

Taxonomic Group	Name	Spcode
	Archepleuroxus baylyi Smirnov & Timms, 1983	OG030401
	Camptocercus australis Sars, 1896	OG030701
	Celsinotum sp. (cf. hypsilophum Frey 1991)	OG0308A0
	Celsinotum n. sp. a	OG0308A1
	Celsinotum sp. (*)	OG030899
	Chydorus sphaericus Müller, 1785 (2)	OG030910
	Chydorus sp. (*)	OG030999
	Chydorus sp. a (2)	OG0309A0
	Chydorus sp. b (2)	OG0309A1
	Dunhevedia crassa King, 1853	OG031201
	Dunhevedia cf. crassa King, 1853 (#)	OG0312A0
	Ephemeroportus barroisi s.l. (Richard, 1894)	OG031301
	Ephemeroportus cf. barroisi (Richard, 1894) (#)	OG0313A0
	Graptoleberis testudinaria Fischer 1851	OG031501
	Kurzia latissima (Kurz, 1874)	OG031601
	Kurzia longirostris (Daday, 1898)	OG031602
	Leberis aenigmatica Smirnov, 1989	OG031701
	Leberis n. sp.	OG0317A1
	Leydigia australis Sars, 1885	OG031802
	Leydigia laevis Gurney, 1927	OG0318A3
	Leydigia sp. (cf. leydigii Schoedler, 1863)	OG0318A2
	Planicirculus alticarinatus Frey, 1991	OG032301
	Plurispina chauliodis Frey, 1991	OG032401
	Plurispina multituberculata Frey, 1991	OG0324A1
	Pleuroxus foveatus Frey, 1991	OG032501
	Pleuroxus inermis Sars, 1896	OG032502
	Pleuroxus sp. (*)	OG032599
	Pseudochydorus globosus (Baird, 1843)	OG032601
	Rak labrosus Smirnov & Timms, 1983	OG032701
	Rak n. sp. a	OG0327A0
	Rak n. sp. b	OG0327A1
	Rak n. sp. c	OG0327A2
	Australospilus elongatus Smirnov & Timms, 1983	OG033001
	Pseudomonospilus diporus Smirnov & Timms, 1983	OG033101
	Pseudomonospilus biocellatus (Smirnov, 1995)	OG033102
Daphniidae	Ceriodaphnia cornuta Sars, 1885	OG040101
	Ceriodaphnia dubia Richard, 1894	OG040103
	Ceriodaphnia n. sp.? (cf. dubia Richard, 1894)	OG0401A0
	Ceriodaphnia quadrangula s.l. (Müller, 1785)	OG0401A1
	Ceriodaphnia laticaudata s.l. Mueller, 1867	OG0401A2
	Ceriodaphnia n. sp. a	OG0401A5
	Ceriodaphnia n. sp. b	OG0401A4
	Ceriodaphnia n. sp. c	OG0401A6
	Ceriodaphnia n. sp. d	OG0401A7
	Ceriodaphnia sp. (*)	OG040199
	Daphnia carinata King, 1853	OG040201
	Daphnia projecta Hebert, 1977	OG040205
	Daphnia jollyi Petkovski, 1973	OG040206
	Daphnia cephalata King, 1853	OG040202
	Daphnia n. sp. a	OG0402A4
	Daphnia n. sp. b	OG0402A3
	Daphnia n. sp. c	OG0402A9
	Daphnia n. sp. d	OG0402B0
	Daphnia sp. e	OG0402A8
	Daphnia sp. (*)	OG040299
	Daphniopsis pusilla Serventy 1929	OG040301
	Daphniopsis queenslandensis Sergeev, 1990	OG040302
	Daphniopsis australis Sergeev & Williams 1985	OG040303
	Daphniopsis quadrangulus Sergeev, 1990	OG040304
	Daphniopsis truncata Hebert & Wilson, 2000	OG040305
	Daphniopsis wardi Hebert & Wilson, 2000	OG040306
	Daphniopsis sp. a	OG0403A0
	Daphniopsis sp. (*)	OG040399
	Scapholeberis kingi Sars, 1903	OG040401
	Simocephalus exspinosus (De Greer, 1778)	OG040502
	Simocephalus elizabethae (King, 1853)	OG040505
	Simocephalus gibbosus Sars, 1896	OG040506
	Simocephalus victoriensis Dumont, 1983	OG040507
	Simocephalus sp. (cf. heilongjiangensis Shi & Shi, 1994)	OG0405A1
	Simocephalus sp. (*)	OG040599
Ilyocryptidae	Ilyocryptus smirnovi Kotov & Timms, 1998	OG050101
	Ilyocryptus spinifer Herrick, 1882	OG050105
	Ilyocryptus sp. (cf. timmsi Kotov & Dumont, 2000)	OG0501A3
Macrothricidae	Macrothrix breviseta Smirnov, 1976	OG060201
	Macrothrix triserialis Brady, 1886	OG060202
	Macrothrix schauinslandi Sars, 1904	OG060203
	Macrothrix hardingi Petkovski, 1973	OG060204
	Macrothrix carinata (Smirnov, 1976)	OG060206
	Macrothrix hystrix Gurney, 1927	OG060210
	Macrothrix indistincta Smirnov, 1992	OG060211
	Macrothrix sp. (cf. spinosa King, 1953)	OG0602A0
	Macrothrix sp. (cf. rosea Lievin, 1848)	OG0602B0



Taxonomic Group	Name	Spcode
	Macrothrix sp. (cf. flagellata (Smirnov & Timms, 1983))	OG0602B1
	Macrothrix sp. (cf. williamsi (Smirnov & Timms, 1983))	OG0602B2
	Macrothrix n. sp.	OG0602B3
	Macrothrix sp. (*)	OG060299
Moinidae	Moina australiensis Sars, 1896	OG070101
	Moina micrura Kurz, 1874	OG070103
	Moina tenuicornis Sars, 1896	OG070105
Neothricidae	Neothrix armata Gurney, 1927	OG090301
	Neothrix paucisetosa Smirnov, 1989	OG090302
	Neothrix sp. (cf. superarmata Smirnov, 1989)	OG0903A3
<b>OSTRACODA</b>		
Limnocytheridae	Gomphodella sp. (cf. maia De Deckker, 1981)	OH0101A0
	Limnocythere dorsosicula De Deckker, 1981	OH010201
	Limnocythere mowbrayensis Chapman, 1914	OH010203
	Limnocythere porphyretica De Deckker, 1981	OH010204
	Limnocythere ?porphyretica De Deckker, 1981	OH0102A1
	Limnocythere sp. 447 (cf. porphyretica De Deckker, 1981)	OH0102A2
	Limnocythere n. sp. 732	OH0102A6
	Limnocythere sp. (*)	OH010299
	Paralimnocythere sp. 275	OH0103A0
	Paralimnocythere sp. 262	OH0103A1
Cytherideidae	Cyprideis australiensis Hartmann, 1978	OH040101
Ilyocypridae	Ilyocypris australiensis Sars, 1889	OH060101
	Ilyocypris n. sp.	OH060103
	Ilyocypris sp. 731	OH0601A0
Candonidae	Candonopsis tenuis (Brady)	OH070101
Cyprididae	Cyprididae (*)	OH089999
	Alboa worooa De Deckker, 1981	OH080101
	Australocypris dispar De Deckker, 1981	OH080201
	Australocypris insularis (Chapman, 1966)	OH080203
	Australocypris bennetti Halse & McRae 2004	OH080206
	Australocypris mongerensis Halse & McRae 2004	OH0802A1
	Australocypris sp. 739	OH0802A2
	Bennelongia australis (Brady, 1886)	OH080301
	Bennelongia barangaroo De Deckker, 1981	OH080302
	Bennelongia sp. 277	OH0803A2
	Bennelongia sp. 563	OH0803A3
	Candonocypris novaezelandiae (Baird, 1843)	OH080402
	Candonocypris sp. 682 (cf. novaezelandiae Baird, 1843) (#)	OH0804A0
	Cypretta baylyi McKenzie, 1966	OH080501
	Cypretta sp. 527	OH0805A0
	Cypretta sp. (cf. globosa (Brady, 1886))	OH0805A1
	Cypretta sp. 569	OH0805A2
	Cypretta sp. 647	OH0805A3
	Cypretta n. sp. 730	OH0805A7
	Cypretta sp. 684	OH0805B2
	Cypretta sp. (*)	OH080599
	Cyprinotus edwardi McKenzie, 1978	OH080602
	Cyprinotus kimberleyensis McKenzie, 1966	OH080603
	Diacypris dictyote De Deckker, 1981	OH080701
	Diacypris spinosa De Deckker, 1981	OH080703
	Diacypris compacta Herbst	OH080704
	Diacypris fodiens Herbst, 1958	OH080705
	Diacypris phoxe De Deckker, 1981	OH080706
	Diacypris whitei Herbst, 1958	OH080707
	Diacypris n. sp. 523	OH0807A0
	Diacypris n. sp.	OH0807A3
	Diacypris n. sp. 581	OH0807A4
	Diacypris sp. (*)	OH080799
	Eucypris virens (Jurine, 1820)	OH080801
	Heterocypris incongruus (Ramdohr, 1808)	OH081002
	Heterocypris tatei (Brady, 1886)	OH081003
	Heterocypris vatia De Deckker, 1981	OH081004
	Heterocypris n. sp. 755	OH0810A1
	Heterocypris sp. (*)	OH081099
	Mytilocypris ambiguosa De Deckker, 1978	OH081201
	Mytilocypris tasmanica chapmani McKenzie, 1966	OH081208
	Reticocypris clava De Deckker, 1981	OH081501
	Reticocypris walbu De Deckker, 1979	OH081505
	Reticocypris n. sp. 556	OH0815A0
	Reticocypris n. sp. (Lake Austin species)	OH0815A2
	Reticocypris n. sp. 557	OH0815A3
	Reticocypris n. sp. 743	OH0815A5
	Reticocypris ?pinguis De Deckker, 1981	OH0815A6
	Reticocypris sp. (*)	OH081599
	Trigonocypris sp. (cf. globulosa De Deckker, 1978)	OH0817A0
	Zonocypris kalimna De Deckker, 1981	OH081801
	Ilyodromus amplicolis De Deckker, 1981	OH081901
	Ilyodromus sp. (cf. amplicolis De Deckker, 1981) (1) (#)	OH0819B1
	Ilyodromus candonites De Deckker, 1981	OH081902
	Ilyodromus dikrus De Deckker, 1981	OH081903
	Ilyodromus viridulus (Brady, 1886)	OH081906



Taxonomic Group	Name	Spcode
	Ilyodromus sp. 566 (cf. amplicolis)	OH0819A2
	Ilyodromus sp. 255	OH0819A3
	Ilyodromus sp. 573	OH0819A4
	Ilyodromus sp. 561	OH0819A5
	Ilyodromus sp. 630	OH0819A7
	Ilyodromus sp. (*)	OH081999
	Cypricerus salinus De Deckker, 1981	OH082101
	Cypricerus unicornis De Deckker, 1981	OH082102
	Cypricerus sp. 442 (= sp. 422 + 444 of Halse et al. 2000)	OH0821A0
	Cypricerus sp. 637	OH0821A3
	Cypricerus sp. 638	OH0821A4
	Cypricerus sp. 634	OH0821A5
	Cypricerus sp. 415	OH0821A8
	Cabonocypris nunkeri De Deckker, 1982	OH082301
	Cabonocypris sp. ('Kondinin')	OH0823A1
	Lacrimicypris kumpar Halse & McRae 2004	OH082501
	Platycypris baueri Herbst, 1956	OH082601
Cypridopsidae	Sarscypridopsis aculeata (Costa, 1847)	OH090101
	Sarscypridopsis sp. 642 (cf. aculeata (Costa, 1847) (#)	OH0901A3
	Sarscypridopsis sp. 165 (cf. aculeata (Costa, 1847) (#)	OH0901A4
	Sarscypridopsis ?proxila De Deckker, 1982	OH0901A1
Leptocytheridae	Leptocythere lacustris De Deckker, 1981	OH100101
	Leptocythere hartmanni (McKenzie, 1967)	OH100102
Notodromadidae	Newnhamia fenestra King, 1855	OH110101
	Newnhamia sp. 295	OH1101A0
	Newnhamia sp. FC	OH1101A1
	Newnhamia sp. (*)	OH110199
	Kennethia cristata De Deckker, 1978	OH110201
	Kennethia sp. 670	OH1102A0
<b>COPEPODA (CALANOIDA)</b>		
Centropagidae	unidentified calanoids (*)	OJ199999
	Boeckella triarticulata (Thompson, 1883)	OJ110101
	Boeckella bispinosa Bayly, 1967	OJ110104
	Boeckella geniculata Bayly, 1964	OJ110108
	Boeckella opaqua Fairbridge, 1945	OJ110113
	Boeckella robusta Sars, 1896	OJ110118
	Boeckella shieli Bayly, 1985	OJ110120
	Boeckella n. sp. 2 (nr triarticulata)	OJ1101A1
	Boeckella n. sp. 3	OJ1101A2
	Boeckella sp. (*)	OJ110199
	Calamoecia ampulla (Searle, 1911)	OJ110202
	Calamoecia attenuata (Fairbridge, 1945)	OJ110203
	Calamoecia clitellata Bayly, 1962	OJ110208
	Calamoecia salina Bayly, 1962	OJ110209
	Calamoecia tasmanica subattenuata (Fairbridge, 1945)	OJ110211
	Calamoecia trilobata Halse & McRae, 2001	OJ1102A0
	Calamoecia sp. 342 (ampulla variant)	OJ1102A1
	Calamoecia "Lake Grace form" lucasi Bayly, 1984	OJ1102A2
	Gladiferens imparipens Thomson, 1944	OJ110401
	Sulcanus conflictus Nicholls, 1945	OJ130101
Sulcaniidae		
<b>COPEPODA (CYCLOPOIDA)</b>		
Cyclopoidae	Cyclopoidae (*)	OJ319999
	Microcyclops varicans (Sars, 1863)	OJ310101
	Metacyclops sp. 442	OJ3102A0
	Metacyclops sp. 462	OJ3102A1
	Metacyclops sp. 434 (= arnaudi sensu Sars)	OJ3102A2
	Metacyclops sp. 2	OJ3102A3
	Metacyclops sp. 5	OJ3102A4
	Metacyclops sp. 4	OJ3102A6
	Metacyclops sp. 6	OJ3102A7
	Metacyclops sp. 7	OJ3102A8
	Metacyclops sp. 1	OJ3102A9
	Metacyclops sp. (*)	OJ310299
	Australocyclops australis (Sars, 1855)	OJ310301
	Australocyclops similis Morton, 1985	OJ310302
	Australocyclops palustrum Morton, 1985	OJ310303
	Halicyclops sp. 1 (cf. ambiguus Kiefer, 1965)	OJ3104A0
	Macrocylops albidus (Jurine, 1820)	OJ310601
	Mesocyclops australiensis (Sars, 1908)	OJ310701
	Mesocyclops brooksi De Laurentiis et al, 1996	OJ310703
	Eucyclops australiensis Morton, 1977	OJ311001
	Paracyclops chiltoni (Thomson, 1883)	OJ311102
	Paracyclops sp. 1 (cf. timmsi Kiefer, 1968)	OJ3111A1
	Paracyclops sp. 5	OJ3111A2
	Paracyclops sp. (*)	OJ311199
	Apocyclops dengizicus (Lepesckin, 1900)	OJ311201
	Meridiocyclops baylyi Fiers 2001	OJ311701
	Meridiocyclops sp. 3	OJ3102A5

Taxonomic Group	Name	Spcode
	Mixocyclops sp. 1	OJ3199A1
<b>COPEPODA</b> <b>(HARPACTICOIDA)</b>		
Canthocamptidae	unidentified harpacticoids (*)	OJ699999
	Canthocamptidae (*)	OJ619999
	Canthocamptus australicus (Sars, 1908)	OJ610101
	Canthocamptus sp. 1	OJ6101A0
	Mesochra baylyi Hamond, 1971	OJ610302
	Mesochra parva Thomson, 1946	OJ610303
	Mesochra sp. (cf flava Lang, 1933)	OJ6103A1
	Mesochra sp. (*)	OJ610399
	Cletocamptus dietersi (Richard, 1897)	OJ610402
	Canthocamptidae sp. 1	OJ6199A0
	Canthocamptidae sp. 2	OJ6199A1
	Canthocamptidae sp. 3	OJ6199A2
	Canthocamptidae sp. 4	OJ6199A3
	Canthocamptidae sp. 5	OJ6199A4
	Canthocamptidae sp. 6	OJ6199A5
	Canthocamptidae sp. a	OJ6199A6
	Canthocamptidae sp. b	OJ6199A7
	Canthocamptidae nr sp. 5	OJ6199A8
Laophontidae	Onychocamptus bengalensis (Sewell, 1934)	OJ620101
	Laophontidae sp. 1	OJ6299A0
Diosaccidae	Schizopera clandestina (Klie, 1924)	OJ630201
	Schizopera sp. 1	OJ6302A0
	Schizopera sp. (*)	OJ630299
	Diosaccidae sp 1	OJ6399A0
Ameiridae	Nitocra sp. 5 (?reducta)	OJ6401A0
	Nitocra sp. 1	OJ6401A1
	Nitocra sp. 2	OJ6401A2
	Nitocra sp. 3	OJ6401A3
	Nitocra sp. 4	OJ6401A4
	Nitocra nr sp. 4	OJ6401A5
	Nitocra sp. 6	OJ6401A6
	Nitocrella sp.	OJ640299
Parastenocarididae	Parastenocarididae	OJ669999
	Harpacticoida sp. 674	OJ6999A5
	Harpacticoida sp. 2	OJ6999B0
<b>AMPHIPODA</b>		
Ceinidae	Austrochiltonia subtenius (Sayce, 1902)	OP020102
Corophiidae	Corophium sp.	OP050399
Perthidae	Perthia sp.	OP080199
Melitidae	Melita kauerti Barnard, 1972	OP090402
<b>ISOPODA</b>		
Amphisopidae	Paramphisopus palustris (Glauert, 1924)	OR010101
Sphaeromatidae	Exosphaeroma sp.	OR130299
Oniscidae	Haloniscus searlei Chilton, 1920	OR250101
Philosciidae	Philosciidae (*)	OR279999
<b>DECAPODA</b>		
Palaemonidae	Palaemonetes australis Dakin, 1915	OT020201
Parastacidae	Cherax destructor Clark, 1936	OV010101
	Cherax preissii (Erichson, 1846)	OV010113
	Cherax quinquecarinatus (Gray, 1845)	OV010116
	Cherax tenuimanus (Smith, 1912)	OV010121
	Cherax sp. (*)	OV010199
<b>COLEOPTERA</b>		
Carabidae	Carabidae	QC059999
Halipilidae	Halipilidae (*)	QC069999
	Halipilus fuscatus Clark, 1862	QC060104
	Halipilus gibbus Clark, 1862	QC060105
	Halipilus sp. (*)	QC060199
Hygrobiidae	Hygrobia sp.	QC070199
Noteridae	Neohydrocoptus subfasciatus (Sharp, 1882)	QC080399
Dytiscidae	Laccophilus sharpi Regimbart, 1889	QC090101
	Hyphydrus elegans (Montrouzier, 1860)	QC090401
	Hyphydrus sp. (*)	QC090499
	Uvarus pictipes (Lea, 1898)	QC090701
	Allodessus bistrigatus (Clark, 1862)	QC091101
	Liodessus inornatus (Sharp, 1882)	QC091205
	Liodessus dispar (Sharp, 1882)	QC091206
	Paroster michaelsoni Regimbart, 1908	QC091405
	Paroster niger Watts, 1978	QC091407
	Paroster couragei Watts, 1978	QC091408
	Paroster sp. 1	QC0914A0
	Paroster sp. 2	QC0914A1
	Paroster sp. 3	QC0914A2
	Paroster sp. (*)	QC091499
	Antiporus gilberti (Clark, 1862)	QC091603
	Antiporus femoralis (Boheman, 1858)	QC091604
	Antiporus mcraeae Watts & Pinder 2000	QC0916A0
	Antiporus pennifolidae Watts & Pinder 2000	QC0916A1
	Antiporus sp. (*)	QC091699

Taxonomic Group	Name	Spcode
	<i>Sternopriscus multimaculatus</i> (Clark, 1862)	QC091805
	<i>Sternopriscus browni</i> Sharp, 1882	QC091809
	<i>Sternopriscus marginatus</i> Watts, 1978	QC091812
	<i>Sternopriscus</i> n. sp.	QC0918A0
	<i>Sternopriscus</i> sp. (*)	QC091899
	<i>Necterosoma penicillatus</i> (Clark, 1862)	QC092001
	<i>Necterosoma wollastoni</i> (Clark, 1862)	QC092002
	<i>Necterosoma darwini</i> (Babington, 1841)	QC092006
	<i>Necterosoma regulare</i> Sharp, 1882	QC092009
	<i>Necterosoma</i> sp. (*)	QC092099
	<i>Megaporus howitti</i> (Clark, 1862)	QC092103
	<i>Megaporus solidus</i> (Sharp, 1882)	QC092107
	<i>Megaporus</i> sp. (*)	QC092199
	<i>Platynectes aenescens</i> Sharp, 1882	QC092207
	<i>Platynectes decempunctatus</i> var <i>polygrammus</i> Regimbart, 1899	QC092209
	<i>Platynectes</i> sp. (*)	QC092299
	<i>Rhantus suturalis</i> (MacLeay, 1825)	QC092301
	<i>Rhantus</i> sp. (*)	QC092399
	<i>Lancetes lanceolatus</i> (Clark, 1866)	QC092401
	<i>Lancetes</i> sp. (*)	QC092499
	<i>Batrachomatus wingi</i> (Clark, 1866)	QC092602
	<i>Copelatus ater</i> Sharp, 1882	QC092713
	<i>Copelatus ferrugineus</i> Sharp, 1882	QC092715
	<i>Copelatus</i> sp. (*)	QC092799
	<i>Hyderodes crassus</i> Sharp, 1882	QC092802
	<i>Hyderodes</i> sp. (*)	QC092899
	<i>Eretes australis</i> (Erichson, 1842)	QC092901
	<i>Eretes</i> sp. (*)	QC092999
	<i>Spencerhydrus pulchellus</i> Sharp, 1882	QC093302
	<i>Onychohydrus scutellaris</i> (Germar, 1848)	QC093401
	<i>Onychohydrus</i> sp. (*)	QC093499
	<i>Cybister tripunctatus</i> (Oliver, 1795)	QC093602
	<i>Bidessini</i> (*)	QC0999A6
Gyrinidae	<i>Gyrinidae</i> (*)	QC109999
	<i>Macrogyrus angustatus</i> Regimbart, 1882	QC100105
	<i>Aulonogyrus strigosus</i> (Fabricius, 1801)	QC100201
	<i>Dineutus australis</i> (Fabricius, 1775)	QC100301
Hydrophilidae	<i>Hydrophilidae</i> (*)	QC119999
	<i>Berosus australiae</i> Mulsant, 1859	QC110401
	<i>Berosus approximans</i> Fairmaire, 1879	QC110404
	<i>Berosus dallasae</i> Watts, 1978	QC110406
	<i>Berosus discolor</i> Blackburn, 1888	QC110409
	<i>Berosus macumbensis</i> Blackburn, 1896	QC110416
	<i>Berosus majusculus</i> Blackburn, 1888	QC110417
	<i>Berosus munitipennis</i> Blackburn, 1895	QC110418
	<i>Berosus nutans</i> (Macleay, 1873)	QC110421
	<i>Berosus</i> sp. (*)	QC110499
	<i>Laccobius clarus</i> Gentili, 1980	QC110601
	<i>Laccobius zeitzi</i> (Blackburn, 1895)	QC110602
	<i>Paranaaena littoralis</i> (d'Orchymont, 1942)	QC110904
	<i>Enochrus elongatus</i> (MacLeay, 1873)	QC111101
	<i>Enochrus eyrensis</i> (Blackburn, 1894)	QC111102
	<i>Enochrus maculiceps</i> (MacLeay, 1873)	QC111103
	<i>Enochrus</i> sp. (*)	QC111199
	<i>Helochares percyi</i> Watts, 1995	QC111202
	<i>Helochares tenuistriatus</i> Regimbart, 1908	QC111203
	<i>Helochares tatei</i> (Blackburn, 1896)	QC111204
	<i>Limnoxenus zelandicus</i> (Broun, 1880)	QC111401
	<i>Paracymus pygmaeus</i> (Macleay, 1873)	QC111601
Hydraenidae	<i>Hydraena luridipennis</i> Macleay, 1873	QC130101
	<i>Hydraena cygnus</i> Zwick, 1977	QC130116
	<i>Ochthebius</i> sp. (*)	QC130399
	<i>Gymnocthebius</i> sp. 1	QC1304A0
	<i>Gymnocthebius</i> sp. 2	QC1304A1
	<i>Gymnocthebius</i> sp. 3	QC1304A2
	<i>Tympanogaster</i> sp. 1	QC1305A0
Staphylinidae	<i>Staphylinidae</i> (*)	QC189999
Scirtidae	<i>Scirtidae</i> (*)	QC209999
Limnichidae	<i>Limnichidae</i> (*)	QC359999
Heteroceridae	<i>Heteroceridae</i> (*)	QC369999
Hydrochidae	<i>Hydrochus australis</i> Motschulsky, 1860	QCA00106
	<i>Hydrochus lateviridus</i> Blackburn, 1896	QCA00117
Curculionidae	<i>Curculionidae</i> (*)	QCAN9999
DIPTERA		
	<i>Diptera</i> (*)	QD999999
	<i>Diptera</i> sp. A	QD9999A0
Tipulidae	<i>Tipulidae</i> (*)	QD019999
	<i>Tipulidae</i> group A	QD0199A0
	<i>Tipulidae</i> group B	QD0199A1
	<i>Tipulidae</i> group C	QD0199A2
	<i>Tipulidae</i> group E	QD0199A4
	<i>Tipulidae</i> group F	QD0199A5



Taxonomic Group	Name	Spcode
	Tipulidae group G	QD0199A6
	Tipulidae group H	QD0199A7
	Tipulidae group I	QD0199A8
Chaoboridae	Promochlonyx australiensis (Ferguson, 1921)	QD050201
Culicidae	Culicidae (*)	QD079999
	Anopheles (Cellia) annulipes Walker, 1856	QD070101
	Aedes (Finlaya) alboannulatus (Macquart, 1850)	QD070501
	Aedes (Finlaya) occidentalis (Skuse, 1889)	QD070504
	Aedes (Ochlerotatus) camptorhynchus (Thomson, 1869)	QD070502
	Aedes (Ochlerotatus) macintoshi Marks, 1959	QD070503
	Aedes (Ochlerotatus) nigrithorax (Macquart, 1847)	QD070505
	Aedes (Ochlerotatus) ratcliffei Marks, 1959	QD070506
	Aedes (Ochlerotatus) sticklandi (Edwards, 1912)	QD0705A0
	Aedes (Ochlerotatus) nr. clelandi (Taylor, 1914)	QD0705A1
	Aedes (Ochlerotatus) sp. 1 (cf. nigrithorax (Macquart, 1847))	QD0705A2
	Aedes sp. 3	QD0705A4
	Aedes sp. 4	QD0705A5
	Aedes sp. (*)	QD070599
	Culex (Culex) australicus Dobrotworsky & Drummond, 1953	QD070706
	Culex ?palpalis (Taylor, 1912)	QD070708
	Culex (Neoculex) latus Dobrotworsky, 1956	QD070707
	Culex (Neoculex) sp. 1	QD0707A0
	Culex sp. 3	QD0707A1
	Culex (Culex) sp. 2	QD0707A2
	Culex sp. 4	QD0707A3
	Culex sp. (*)	QD070799
	Coquillettidia nr linealis	QD0708A0
Ceratopogonidae	Ceratopogonidae (*)	QD099999
	Bezzia sp. 1	QD0904A1
	Bezzia sp. 2	QD0904A0
	Bezzia sp.	QD090499
	Clinohoelea sp. 1	QD0906A0
	Clinohoelea sp. 2	QD0906A1
	Clinohoelea sp. (*)	QD090699
	Culicoides sp.	QD090899
	Monohelea sp. 1	QD0919A0
	Monohelea sp. 2	QD0919A1
	Monohelea sp. 3	QD0919A2
	Monohelea sp. 4	QD0919A3
	Monohelea sp. (*)	QD091999
	Nilobezzia sp. 1	QD0920A0
	Nilobezzia sp. 2	QD0920A1
	Nilobezzia sp. 3	QD0920A2
	Nilobezzia sp. (*)	QD092099
	Atrichopogon sp. 2	QD0927A0
	Forcypomyia sp. 2	QD0928A2
	Forcypomyia sp. 3	QD0928A0
	Forcypomyia sp. 4	QD0928A1
	Forcypomyia sp. 5	QD0928A3
	Forcypomyia sp. 6	QD0928A4
	Forcypomyia sp. (*)	QD092899
	Dasyhelea sp.	QD092999
	Ceratopogonidae sp. a	QD0999A0
	Ceratopogonidae sp. b	QD0999A1
Simuliidae	Austrosimulium furiosum (Skuse, 1888)	QD100102
	Simulium ornatipes Skuse, 1890	QD100202
Psychodidae	Psychodidae (*)	QD129999
	Psychodinae sp. 1	QD1299A0
	Psychodinae sp. 2	QD1299A1
	Psychodinae sp. 3	QD1299A2
	Psychodinae sp. 4	QD1299A3
Tabanidae	Tabanidae (*)	QD239999
Stratiomyidae	Stratiomyidae (*)	QD249999
Empididae	Empididae (*)	QD359999
Dolichopodidae	Dolichopodidae (*)	QD369999
	Dolichopodidae sp. a	QD3699A0
	Dolichopodidae sp. b	QD3699A1
Syrphidae	Syrphidae (*)	QD439999
Sciomyzidae	Sciomyzidae (*)	QD459999
Ephydriidae	Ephydriidae (*)	QD789999
	Ephydriidae sp. 1 (SAP)	QD7899A5
	Ephydriidae sp. 2 (SAP)	QD7899A6
	Ephydriidae sp. 3 (SAP)	QD7899A7
	Ephydriidae sp. 4 (SAP)	QD7899A8
	Ephydriidae sp. 5 (SAP)	QD7899A9
	Ephydriidae sp. 6 (SAP)	QD7899B0
Muscidae	Muscidae (*)	QD899999
	Muscidae sp. a	QD8999A0
	Muscidae sp. b	QD8999A1
	Muscidae sp. c	QD8999A2
	Muscidae sp. d	QD8999A3
	Muscidae sp. e	QD8999A7



Taxonomic Group	Name	Spcode
	Muscidae sp. f	QD8999A8
	Muscidae sp. j	QD8999A9
	Muscidae sp. k	QD8999B0
	Muscidae sp. l	QD8999B1
Scatopsidae	Scatopsidae	QD9999A1
Chironomidae	Coelopynia pruinosa Freeman, 1961	QDAE0201
	Procladius paludicola Skuse, 1889	QDAE0803
	Procladius villosimanus Kieffer, 1917	QDAE0804
	Alotanypus dalyupensis Freeman, 1961	QDAE1001
	Ablabesmyia notabilis (Skuse, 1889)	QDAE1102
	Paramerina levidensis (Skuse, 1889)	QDAE1201
	Paramerina sp. a	QDAE12A0
	Larsia ?albiceps Johannsen, 1931	QDAE17A0
	Tanypodinae sp. a	QDAE99A0
	Pentaneurini sp. a	QDAE99A2
	Pentaneurini sp. c	QDAE99A3
	Tanypodinae sp. c (nr Tanypus)	QDAE99A5
	Parakiefferiella sp. a	QDAF03A0
	Nanocladius sp. l (VCD7)	QDAF04A0
	Corynoneura sp. (V49)	QDAF0699
	Thienemanniella sp. (V19)	QDAF07A0
	Paralimnophyes pullulus (Skuse, 1889)	QDAF1202
	Cricotopus sp. (= 'albitarsis' MS name of Cranston 2000)	QDAF1501
	Cricotopus sp. (= 'parbicinctus' MS name of Cranston 2000)	QDAF15A0
	Cricotopus (= 'brevicornis' MS name of Cranston 2000)	QDAF15A1
	Compterosmittia? sp. a	QDAF19A0
	Compterosmittia? sp. b	QDAF19A1
	Allotrissocladius? sp. l	QDAF21A0
	Allotrissocladius? sp. m	QDAF21A1
	Gymnometriocnemus sp. a	QDAF26A0
	Gymnometriocnemus sp. b	QDAF26A1
	Limnophyes sp. a	QDAF28A0
	Orthocladius petrophilus Cranston & Edward, 1999	QDAF3508
	Orthoclaadiinae (*)	QDAF9999
	Orthoclaadiinae sp. a (=VSC11?)	QDAF99A0
	Orthoclaadiinae sp. b	QDAF99A1
	Orthoclaadiinae sp. c	QDAF99A6
	Orthoclaadiinae sp. d	QDAF99A2
	Orthoclaadiinae sp. e	QDAF99A3
	Orthoclaadiinae sp. f	QDAF99A4
	Orthoclaadiinae sp. g	QDAF99A5
	Orthoclaadiinae sp. i	QDAF99A7
	Orthoclaadiinae sp. j	QDAF99A8
	Orthoclaadiinae sp. k	QDAF99A9
	Orthoclaadiinae sp. n	QDAF99B2
	Orthoclaadiinae sp. p	QDAF99B5
	Orthoclaadiinae sp. q	QDAF99B6
	Orthoclaadiinae sp. r	QDAF99C2
	Orthoclaadiinae sp. s	QDAF99B0
	Orthoclaadiinae sp. t	QDAF99C4
	Orthoclaadiinae S03 sp. a	QDAF99B4
	Orthoclaadiinae S03 sp. b	QDAF99B7
	Orthoclaadiinae S03 sp. c (V31)	QDAF99C0
	Orthoclaadiinae S03 sp. d	QDAF99C1
	Orthoclaadiinae (= 'woodminer' of Cranston, 1996)	QDAF99C3
	Cladotanytarsus sp. a	QDAH03A0
	Tanytarsus barbitarsis Freeman, 1961	QDAH0402
	Tanytarsus sp. (nr bispinosus Freeman, 1961)	QDAH0405
	Tanytarsus fuscithorax/semibarbitarsus Skuse, 1889/Glover, 1973	QDAH0410
	Tanytarsus palmatus Freeman, 1961	QDAH0420
	Tanytarsus sp. b	QDAH04A1
	Tanytarsus sp. d	QDAH04A3
	Tanytarsus bispinosus Freeman, 1961	QDAH04A4
	Tanytarsus sp. f	QDAH04A5
	Tanytarsus sp. g	QDAH04A6
	Tanytarsus sp. h	QDAH04A7
	Tanytarsus sp. (*)	QDAH0499
	Tanytarsini (*)	QDAH9999
	Paratanytarsus sp. a	QDAH06A0
	Paratanytarsus sp. b	QDAH06A1
	Rheotanytarsus sp.	QDAH0799
	Harrisius sp.	QDAI01A0
	Stenochironomus sp.	QDAI01A1
	Chironomus occidentalis Skuse, 1889	QDAI0408
	Chironomus tepperi Skuse, 1889	QDAI0414
	Chironomus aff. alternans Walker, 1856 (V24)	QDAI04A0
	Xenochironomus sp. a	QDAI05A0
	Dicrotendipes conjunctus (Walker, 1856)	QDAI0603
	Dicrotendipes jobetus Epler, 1988	QDAI0606
	Dicrotendipes pseudoconjunctus (Walker, 1856)	QDAI0611
	Dicrotendipes sp. a (V47)	QDAI06A0
	Dicrotendipes ('CA1' of Cranston 1996)	QDAI06A4

Taxonomic Group	Name	Spcode
	Kiefferulus intertinctus (Skuse, 1889)	QDAI0701
	Kiefferulus martini Freeman, 1961	QDAI0703
	Polypedilum leei Freeman, 1961	QDAI0801
	Polypedilum nubifer (Skuse, 1889)	QDAI0804
	Polypedilum watsoni Freeman, 1961	QDAI0810
	Polypedilum sp. (nr vespertinus(Skuse, 1889))	QDAI08A1
	Polypedilum sp. (nr. convexum Johannsen, 1932)	QDAI08A2
	Polypedilum sp. (*)	QDAI0899
	Paratendipes sp. a	QDAI10A0
	Paraborniola tonnoiri Freeman, 1961	QDAI1701
	Cryptochironomus griseidorsum (Kieffer, 1917)	QDAI1901
	Cladopelma curtivalva (Kieffer, 1917)	QDAI2201
	Paracladopelma sp. a (nr M2)	QDAI24A0
	Parachironomus sp. 1 (VSCL35)	QDAI25A0
	Chironomini sp. a	QDAI99A0
<b>EPHEMEROPTERA</b>		
Baetidae	Baetidae (*)	QE029999
	Cloeon sp.	QE020299
	Tasmanocoenis tillyardi (Lestage, 1938)	QE080101
Caenidae		
<b>HEMIPTERA</b>		
Hebridae	Hebrus axillaris	QH530101
	Hebridae sp. 1	QH5399A0
Hydrometridae	Hydrometra sp.	QH540199
Veliidae	Microvelia oceanica Distant, 1914	QH560101
	Microvelia peramoena Hale, 1925	QH560103
	Microvelia sp. (*)	QH560199
Gerridae	Limnogonus sp.	QH570399
Saldidae	Saldidae (*)	QH609999
	Saldula brevicornis Rimes, 1951	QH600201
	Saldula sp. (*)	QH600299
Gelastocoridae	Nerthra femoralis (Montandon, 1899)	QH640105
	Nerthra sp. (*)	QH640199
Corixidae	Corixidae (*)	QH659999
	Diaprepocoris barycephala Kirkaldy, 1902 (2)	QH650101
	Diaprepocoris sp. (*)	QH650199
	Sigara truncatipala (Hale, 1922)	QH650204
	Sigara mullaka Lansbury, 1970	QH650206
	Sigara sp. (*)	QH650299
	Agraptocorixa eurynome (Kirkaldy, 1897)	QH650301
	Agraptocorixa parvipunctata (Hale, 1922)	QH650302
	Agraptocorixa hirtifrons (Hale, 1922)	QH650303
	Agraptocorixa sp. (*)	QH650399
	Micronecta robusta Hale, 1922	QH650502
	Micronecta gracilis Hale, 1922	QH650503
	Micronecta annae s.l. (Kirkaldy)	QH650505
	Micronecta sp. (*)	QH650599
Notonectidae	Notonectidae (*)	QH679999
	Anisops thienemanni Lundblad, 1933	QH670401
	Anisops hyperion Kirkaldy, 1898	QH670402
	Anisops gratus Hale, 1923	QH670403
	Anisops hackeri Brooks, 1951	QH670405
	Anisops elstoni Brooks, 1951	QH670407
	Anisops stali Kirkaldy, 1904	QH670426
	Anisops baylyi Lansbury, 1995	QH670429
	Anisops sp. (*)	QH670499
	Paranisops endymion (Kirkaldy, 1904)	QH670502
Pleidae	Pleidae (*)	QH689999
	Neoplea brunni Kirkaldy, 1898	QH680101
	Neoplea sp. (*)	QH680199
<b>LEPIDOPTERA</b>		
	Lepidoptera (*)	QL999999
	Lepidoptera sp. 3	QL9999A1
	Lepidoptera nr. sp. 16 of Hawking (2001)	QL9999A3
	Lepidoptera sp. 9	QL9999A6
Pyalidae	Pyalidae nr. sp. 39 of Hawking (2001)	QL9999A2
<b>ODONATA (damselflies)</b>		
Coenagrionidae	Austroagrion cyane (Selys, 1876)	QO020505
	Ischnura aurora aurora (Brauer, 1865)	QO021001
	Ischnura heterosticta heterosticta (Burmeister, 1839)	QO021002
	Xanthagrion erythroneurum (Selys, 1876)	QO021301
Lestidae	Lestidae (*)	QO059999
	Austrolestes analis (Rambur, 1842)	QO050101
	Austrolestes annulosus (Selys, 1862)	QO050102
	Austrolestes aridus (Tillyard, 1908)	QO050103
	Austrolestes io (Selys, 1862)	QO050105
	Austrolestes psyche (Hagen, 1862)	QO050107
	Austrolestes sp. (*)	QO050199
Megapodagrionidae	Archiargiolestes pusillus (Tillyard, 1908)	QO070401
<b>ODONATA (dragonflies)</b>		
	unidentified dragonflies (*)	QO999998
Aeshnidae	Aeshnidae (*)	QO129999
	Aeshna brevistyla (Rambur, 1842)	QO120201

Taxonomic Group	Name	Spcode
Gomphidae	Hemianax papuensis (Burmeister, 1839)	QO121201
	Austrogomphus collaris Hagen in Selys, 1854	QO130410
Libellulidae	Austrogomphus gordonii Watson, 1962	QO130411
	Libellulidae (*)	QO179999
	Austrothemis nigrescens (Martin, 1901)	QO170301
	Diplacodes bipunctata (Brauer, 1865)	QO170701
	Diplacodes haematodes (Burmeister, 1839)	QO170702
	Nannophya occidentalis (AUTHOR)	QO171302
	Orthetrum caledonicum (Brauer, 1865)	QO171601
	Zyxomma elgneri Ris, 1913	QO300101
	Archaeosynthemis occidentalis (Tillyard, 1910)	QO230101
	Hemicordulia tau Selys, 1871	QO300102
Procordulia affinis (Selys, 1871)	QO300202	
<b>TRICHOPTERA</b>		
Hydroptilidae	Acritoptila globosa Wells, 1982	QT030201
	Hellyethira litua Wells, 1979	QT030410
	Hellyethira sp. b	QT0304A1
	Hydroptila losida Mosely, 1953	QT030503
	Oxyethira sp.	QT031099
	Cheumatopsyche sp. AV2	QT0605A2
Hydropsychidae	Ecnomidae (*)	QT089999
	Ecnomina group F, sp. AV18	QT0803A2
Ecnomidae	Ecnomina group F, sp. AV16	QT0803A3
	Ecnomina group F, sp. AV20	QT0803A4
	Ecnomus pansus/turgidus Neboiss, 1982	QT0804A0
	Leptoceridae (*)	QT259999
	Lectrides sp. AV1	QT2502A1
	Notalina spira St Clair, 1991	QT250504
	Notalina sp. AV13	QT2505B6
	Notoperata tenax Neboiss, 1982	QT250605
Leptoceridae	Oecetis spp. (*)	QT250799
	Symphitoneuria wheeleri Banks, 1939	QT250903
	Triaenodes sp.	QT251099
	Triplectides australis Navas, 1934	QT251103
	Triplectides niveipennis Mosely, 1953	QT251115