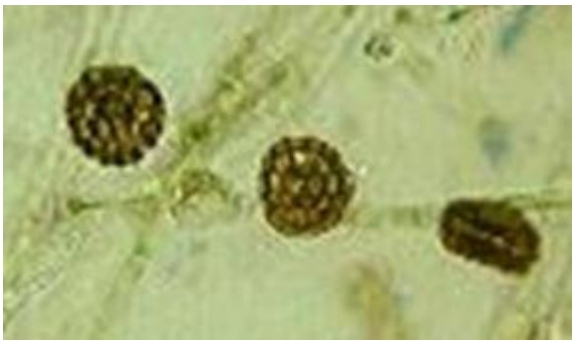
In *Spirogyra* there is a donor cell and a receptor cell at conjugation, and the spore matures in the receptor cell. There are two spore shapes: lentil-like or football-like, and they are consistent for the species. Three common species are *S. singularis* with narrow cells each with a single chloroplast, plane cell ends and smooth footballs, when they form; *S. fluviatilis*, with moderately broad cells, four chloroplasts, plane cell ends and some cells with rhizoids, and wrinkled footballs; and *S. moebii* with large, often short cells, eight chloroplasts and warty lentils.

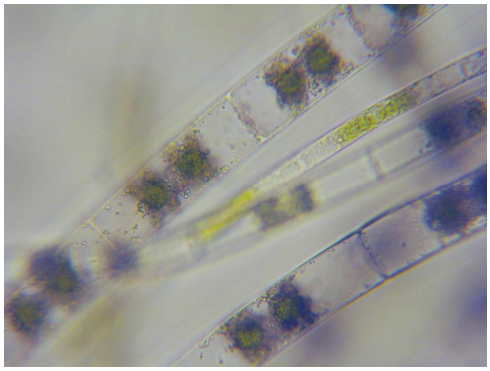
Spirogyra sp from Gibraltar Creek

Sirogonium: Very like *Spirogyra* at first glance, *Sirogonium* has un-spiralled ribbons of chloroplast, and when reproductive, the filament mass becomes a somewhat tangled net. It is also less mucilaginous than its relatives.
The commonly encountered species round Canberra is almost terrestrial, preferring damp soaks to running or standing water, and may well be undescribed. It has cells of the dimensions of *S. floridianum*, but the spores have sculpturing on the walls.

Zygnema: Cells in Zygnema are generally twice as long as broad, and contain two bright green stars of chloroplast. Some species are very fragile.
The most commonly encountered reproductive species are the dirty blue spored *Z. porcatum*, and the brassy spored *Z. reticulosporum.* .



Spores of Zygnema reticulospora from the dam on Mt Taylor.



Zygnema filaments

Desmidium: Cells in *Desmidium*, *Hyalotheca* and similar chain-forming desmids have each cell joined to the ones on either side at the end-walls, as in other filaments, while the isthmus, the junction between the two semi-cells that define the alga as a desmid, is parallel to those end-wall connexions. Filamentous desmid filaments, like some species of *Klebsormidium*, may separate either at the end wall or at the isthmus.

Desmidium cells are ornate, with three or four lobes to each semi-cell. As the tops of these lobes may be the points of junction with the cells above and below, and the lobes may be slightly displaced relative to those in the other semi-cell and the semi-cells above and below the whole filament may take on a spiral or contorted form.

3d. Other Notable Filamentous Algae in ACT Waters

Diatoms

Melosira varians: there are several diatoms that can successfully grow in sufficient numbers to make their appearance visible in the waterways of the ACT, but in general only two, *Tabellaria* and *Melosira*, are commonly encountered. *Tabellaria flocculosa* chains can build up into very great numbers in the spring melt in alpine and montaine areas. After the water level returns to normal there is a white band of floss on the surrounding vegetation. *T. flocculosa* cells look like little glass open books.

Melosira varians: This is probably the most widespread freshwater diatom in Australian waterways. The individual cells are cylindrical, and the chloroplasts are numerous and discoid. The chains can be rather long. Melosira is a very water quality tolerant organism.

Melosira streamers on the causeway at Murray's Corner

Melosira varians from Point Hut Crossing.

There are a number of websites that help with freshwater diatom identification, and while local floras may contain local species, they help you to make determinations to genus. One of the most accessible ones is http://craticula.ncl.ac.uk/EADiatomKey/html/index.html .

Velvet Moss

Vaucheria species: carpets of velvet moss or dark green foxtails on snags and cobbles turn up from time to time along many of our waterways. The recent very dry period has made their occurrence less frequent than might be expected.

Vaucheria species have long unpartitioned tubes of cytoplasm with numerous nuclei and scattered chloroplasts. The reproductive structures are very specialised side pockets with male and female pouches at the ends that look rather like crosiers and flasks. The male crosiers release their flagellated gametes and one fertilises the sedentary gamete in the flask, which develops into a resting spore with a thick wall. Most species of *Vaucheria* are able to survive as semi-terrestrial organisms, and so inhabit both the riffles of a stream and the muddy banks at the splash zone.

Vaucheria species have been found in causeways and pipe mouths in the Murrumbidgee and Gudgenby Rivers and Tuggeranong Ck.

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Appendix 1: **Specimens collected in connexion with this survey**

Specimens collected in connexion with this survey and held by the author. They will probably be deposited at the national Herbarium of New South Wales (NSW) where curation facilities already exist, rather than in Canberra.

The Locality and Community Information column provides much information about where the algae were collected and may be used to compare the floristics of different sites. There are only scant water quality data, but locality and habitat can be as good an indicator in the first instance. This is the data set from which Table 2 and Table 4 (in Chapter 2) were compiled.

Filamentous Algal Records after March 2007.

Collection No	**Determinations of taxa**	**Locality and community information**	**date**
0860	*Nostoc commune*	Orroral River, Orroral Valley4 km NW of Orroral River Crossing campsite, going towards the Tracking Station On granite sand, among Leucopogon &Hakea shrubs, Euc. stellata/Leptospermum riparian woodland.	1 Apr 2007
0861	*Nostoc* sp. *aff. pruniforme*; *Rivularia* 'aquatica'; *Gloeotrichia pisum*; *Tolypothrix* cf *distorta*; *Chaetophora attenuata*; *Draparnaldiopsis* sp.; *Nitella* sp. + desmids incl. *Micrasterias mahabuleshwahensis* 'bulky'	Orroral River, Orroral Valley4 km NW of Orroral River Crossing campsite, going towards the Tracking Station Above and below the walking track bridge, on rocks, in among the Myriophyllum/stonewort meadows or on same.	1 Apr 2007
0862	*Cylindrospermum* sp (immature); *Nostoc* spp.; *Draparnaldia mutabilis*; *Draparnaldiopsis* sp.; *Chaetophora attenuata*; *Klebsormidium* sp; *Hyalotheca* sp.; *Nitella* sp.; +desmids (*Closterium* sp.; *Micrasterias* 'disc'; *Pleurotaenium*…)	Orroral River, Orroral Valley4 km NW of Orroral River Crossing campsite, going towards the Tracking Station At the ford, 250m upstream of the walking track bridge.	2 Apr 2007
0863	*Cladophora glomerata*; *Oedogonium* spp.; *Closterium* ?*ehrenbergii*; *Melosira varians*	Murrumbidgee R., Tharwa Bridge, ACT. In braided stream, poolsin sand or caught on Myriophyllum [with Bidgee Blue team]	18 Apr. 2007
0864	*Rhizoclonium riparium*	Murrumbidgee R., Point Hut Crossing, ACT As long strands im moderately flowing riffle	18 Apr 2007
0865	*Pithophora oedogonia*; *Rhizoclonium riparium*; *Spirogyra* spp.	Oueanbeyan R., Quenbeyan, (above the swing bridge and opposite the golf course), NSW On rocks and boat ramp, attached to mud of rocks; clear, still water	14 May 2007
0866	*Oedogonium* spp.; *Melosira varians* + other diatoms	Murrumbidgee R., Uriarra Crossing, at Swamp Creek parking area, ACT As brown thread-like streamers on riffle	10 June 2007

0867	*Stigeoclonium tenue*; *Oedogonium* sp*; Klebsormidium/Binuclearia* sp. ***Tribonema*** sp. *Melosira varians*; *Synedra/Fragillaria* keyboards	Murrumbidgee R., Uriarra Crossing, at Swamp Creek parking area, ACT As apple green or brown thread-like streamers on riffle at mouth of creek	10 June 2007
0868	*Vaucheria* sp. Fertile (there could be two taxa here)	Murrumbidgee R., Uriarra Crossing, at Swamp Creek parking area, ACT On muddy sand, creek bank under Casuarina	10 June 2007
0869	*Spirogyra* sp.	Cotter R., at pump-house at Cotter Camp, ACT Suspended as bright green gauze in water close to bank.	10 June 2007
0870	*Closterium* sp.; ***Melosira varians***	Gibraltar Ck, at Woods Reserve, ACT Upland creek, mostly boulder maze ; pale blue streamers	10 June 2007
0871	*Spirogyra* sp.	Gibraltar Ck, at Gibraltar Falls, ACT Pool in falls, bright green, attached.	10 June 2007
0872	*Parallela novae zealandiae*; *Draparnaldia mutabilis*; *Oedogonium* spp.; *Spirogyra* spp.; *Zygnema* spp.	Mt Taylor, Chifley, ACT. Dam at base of Mt. T, off Waldock St, Chifley. Green thin, floating patches in cloudy water, at margins	20 June 2007
0873	***Phormidium autumnale***; *Botryococcus braunii*; *Trachelomonas volvocina* and others; *Melosira varians*	Lower Tuggeranong Ck, Greenway, ACT Ford 100m d/s spillway; concrete causeway in Casuarina riparian woodland. Velvety dark green-black mats, curling, with red-brown streamers.	21 June 2007
0874	*Vaucheria* sp. st	Lower Tuggeranong Ck, Greenway, ACT Ford 100m d/s spillway; concrete causeway in Casuarina riparian woodland. Green, wadded turf on upstream edge of causeway	21 June 2007
0875	Parmelloid form of green alga	Lower Tuggeranong Ck, Greenway, ACT Ford 100m d/s spillway; concrete causeway in Casuarina riparian woodland. Bright green gelatinous balloons, on higher bits of uneven causeway	21 June 2007
0876	Coccoid golden green	CSIRO Black Mtn, ACT; Glass-houses below Aust. Nat. Herb.; On concrete in a 'well' formed by base of a stand (for air conditioner) with leaves and things…forming a wet green coat	29 June 2007
0877	*Klebsormidium* sp.	CSIRO Black Mtn, ACT; Glass-houses below Aust. Nat. Herb.; As a film on concrete between glass houses and the concrete drain.	29 Jun 2007
0878	*Phormidium* sp.	CSIRO Black Mtn, ACT; Glass-houses below Aust. Nat. Herb.; As a skin on wet concrete near the 0876 green mess; some bumps and some spreading bits, brownish & dull.	29 Jun 2007
0879	*Phormidium* sp. aff. *amoenium*	CSIRO Black Mtn, ACT; Glass-houses below Aust. Nat. Herb.; As a shiny black or purple-black coating on wet soil and concrete; slippery and sl. metallic	29 Jun 2007
0880	*Oedogonium*?	Bungendore Rd, Carwoola, NSW. Just over the railway crossing around the corner from the road bridge and the railway viaduct over the Molonglo R. Swampy creek formed by banking of	1 Jul 2007

		road and railway.	
0881	Green and apparently filamentous	Wilkins Oval, Captains Flat, NSW. On dried out bare ground at back of leve next to Molonglo R.	1 Jul 2007
0882	*Nostoc commune*	Bungendore Rd, opposite gate to "Leonie" about 10 km S of Bungendore, NSW. Roadside graded scrape with some standing rain-water.	1 Jul 2007
0883		Bungendore Rd, opposite gate to "Leonie" about 10 km S of Bungendore, NSW. In creek bed	1 Jul 2007
0884	*Nostoc verrucosum*?	Morrisset St, Queanbeyan, NSW. Queanbeyan Nursary,on gravel under benches of nursery; brownish and very warty.	30 Jun 2007
0885	*Vaucheria* sp, check again for spores	Lower Tuggeranong Ck, ACT. On bank walls.	3 Jul 2007
0886	*Oedogonium cardiacum*	Waramanga, ACT. Underpass for Tuggeranong Parkway, in gutter on Waramanga side.	3 Jul 2007
0887	*Parallela novae zealandiae*; *Draparnaldia mutabilis*; *Zygnema* spp(2) and more	Dam off Waldock St, Chifley, ACT. At base of Mt Taylor, at end of dam and in the run-in rivulets. Green to yellow-green masses.	3 Jul 2007
0888	Coccoid in jelly; *Botryococcus braunii*; *Bulbochaete* 'long cell'; *Oedogonium* 2spp; *Pleurotaenium* sp.; *Mougeotia* sp. '*viridis*' group; *Spirogyra* lat conj; *Zygnema* sp fert.	Dam off Waldock St, Chifley, ACT. Marginal clouds again, suspended rather than floating on top; plenty of pine pollen. Rotifers, ciliates; nematodes; chitrids.	5 Sept 2007
0889	*Cylindrospermum* sp; *Sirogonium floridianum*	Pialligo, ACT Nursery that sells good roses, under benches	22 Sep 2007
0890	*Oscillatoria perornata* Skuja?; *Closterium* sp.; *Melosira varians*	Lower Tuggeranong Ck, ACT. At ford below spillway. Floating raft caught by the causeway	26 Sep 2007
0891	*Oedogonium* sp; *Spirogyra* sp (*communis* complex?); *Klebsormidium* sp;*Melosira varians;* Keyboards.	Lower Tuggeranong Ck, ACT. At ford below spillway. Green silky to feel pontoons	26 Sept 2007
0892	*Oedogonium capillare*; *Spirogyra singularis*/j*uergensii*	Lower Tuggeranong Ck, ACT. At ford below spillway. Green to yellow green	2 Oct 2007
0893	*Zygnema* sp. aff. *porcatum*; *Mougeotia* sp; *Oedogonium* sp; *Desmidium* and other desmids	Mulligans Flat ACT, Frogpond 2; as suspended clouds in the shallows.	10 Oct 2007
0894	*Chaetophora attenuata*; *Chaetosphaeridium* sp;	John Knight Memorial Park, Lake Gininnderra; apple green, moderately firm balls on Vallisneria or other aquatic surfaces.	16 Oct 2007
0895	*Bulbochaete* sp; *Oedogonium* spp; *Zygnema* sp; *Mougeotia* sp;	John Knight Memorial Park, Lake Gininnderra; bathtub ring from lake weeds	16 Oct 2007
0896	*Oedogonium* spp; *Spirogyra maxima* group fert; *Zygnema* sp; *Mougeotia* sp; *Klebsormidium* sp.	John Knight Memorial Park, Lake Gininnderra; sample from the the uppermost pond and waterfall pond, in chain of artificial ponds through the picnic area	16 Oct 2007
0897	*Sirogonium* sp	Nursery, Pialligo ACT; on gravel under benches; ss and Olga Petkovic	27 Oct 2007
0898	*Zygnema* sp., keys to *Z. reticulosporum* in Kad.	Dam, Waldock St, Mt Taylor ACT; among sedge fringe under dam wall, south end; SS & Mrs Harrison's class,	31 Oct 2007

		Stromlo HS	
0899	*Oedogonium* sp	Dam, Waldock St, Mt Taylor ACT; among sedge fringe under dam wall, south end; SS & Mrs Harrison's class, Stromlo HS	31 Oct 2007
0900	*Audouinella* sp; *Mougeotia* sp; *Spirogyra* rep, fert.	Angle Bend, Murrumbidgee R., NSW/ACT border; as green turf on riffle cobbles in strong flow; pH 8.2; EC 71;Turb 22. SS & Luke Johnston	15 Nov 2007
0901	S*pirogyra* sp, st.	Angle Crossing, ACT; north of causeway, bottom of sandbar, waterfall riffle; in sand pool	16 Nov 2007
0902	*Oedogonium* spp., st.	Angle Crossing, ACT; north of causeway, bottom of sandbar, waterfall riffle; in weeds in riffle	16 Nov 2007
0904	*Nitella* sp	Ororral R., at Ororral River Campsite ACT; as carpet between the rocks and snags	17th Nov 2007
0905	*Cladophora glomerata*	Ororral R., at Ororral River Campsite ACT; on snags and as a raft, green	17th Nov 2007
0906	*Oedogonium* sp, *capillare* like	Ororral R., at Ororral River Campsite ACT; on rocks and snags as bright green streamers	17th Nov 2007
0907	*Nostoc pruniforme*	Ororral R., at Ororral River Campsite ACT; on rocks in short riffle	17th Nov 2007
0908	*Calothrix/Dichothrix* sp; *Chaetophora* sp (not as 0894); diatoms	Ororral R., at Ororral River Campsite ACT; on rocks, very bright green pincushions	17th Nov 2007
0909	*Microspora* sp; *Sirogonium* sp with wrinkled mesospore.	Ororral R., at causeway at Crossing ACT; in gutter (drying out) downstream side of causeway	17th Nov 2007
0910	*Vaucheria* sp;	Gudgenby R., below pipes& causeway, Ororral Rd ACT; fox-tails below the pipemouth	17th Nov 2007
0911	*Melosira varians*; S*ynedra/Fragillaria*; *Oedogonium* spp.	Gudgenby R., below pipes& causeway, Ororral Rd ACT; on mosses in riffle	17th Nov 2007
0912	*Lyngbya* sp; *Geitlerinema/Jaaginema* sp	Gross pollution trap; Drakeford Dr & De Little Cct, Oxley ACT; as thick, warty black-green mat on concrete. (pH 8.3; EC 748; turb 15; DO 1.6)	20 Nov 2007
0913	*Cladophora aegagropila*	Gross pollution trap; Drakeford Dr & De Little Cct, Oxley ACT; as curls and cloud on concrete and among the bulrushes into L. Tuggeranong (with Wanniassa PS)	20 Nov 2007
0914	*Botryococcus*; *Oedogonium*; *Zygnema* spp.	Dam, Waldock St, Mt Taylor ACT; at margins as thin green fuzz	21 Nov 2007
0915	*Oedogonium* sp; *Spirogyra* sp.	Gigerline Gorge, Murrumbidgee R. ACT; MU057; wetland pool in floodway on western shore. + l Johnston	
0916	*Spirogyra* sp.	Confluence Spring Station Ck, Gudgenby R. and Murrumbidgee R.; MU082; top of north side wetland, bright green rafts; + L Johnston	13 Dec 2007
0917	*Cladophora* cf *glomerata*	Confluence of Gudgenby & Murrumbidgee Rs ACT, MU082; attached to rocks, clear flowing water; + L Johnston	13 Dec 2007
0918	*Nostoc*	Confluence of Gudgenby & Murrumbidgee Rs ACT, MU082; attached to rocks, clear flowing water; + L Johnston	13 Dec 2007
0919	*Zygnema* fert.	Murrumbidgee R., below De Salis Cemetery Tharwa ACT; ephemeral wetland in floodrunner; MU083, + L Johnston	13 Dec 2007
0920	*Nostoc commune*?	Murrumbidgee R., below De Salis Cemetery Tharwa ACT; ephemeral	13 Dec 2007

		wetland in floodrunner; MU083, as 'bullets'; +L.Johnston	
0921	*Oedogonium vaucherii*?; *Phacus* sp	"Lanyon" ACT; farm dam just before the house and café; with Lemna and Wolffia; + L Johnston	10 Jan 2008
0922	*Spirogyra fluviatilis/rivularis* complex; *Spirogyra 'singularis'*	Murrumbidgee R., above Point Hut Crossing; rapids next to MU110B; as streamers; + L Johnston	10 Jan 2008
0923	*Hydrodictyon reticulatum*	Lower Tuggeranong Ck, ACT; large pontoons at causeway of ford; pH 8.3, EC 500+	16 Jan 2008
0924	*Microcoleus paludosus*; *Oscillatoria* sp.	Pine Island Beach, Murrumbidgee R., ACT MU163; as dark bottle green skin, stabilising sand and mud in floodrunner; + L Johnston	1 Feb 2008
0925	*Spirogyra* +	Point Hut Crossing, Murrumbidgee R., on the causeway wall; + L Johnston	17 Jan 2008
0926	*Phormidium* sp; *Zygnema* sp;	?MU061	
0927	*Hydrodictyon reticulatum*	Lower Tuggeranong Ck, ACT; large pontoons at causeway of ford and bloom in whole reach; photos	30 Jan 2007
0928	*Spirogyra* sp 4 chlp, fert; *Spirogyra* spp; *Zygnema* spp; *Mougeotia* sp; *Trachelomonas* sp.	Conder ACT; Conder Wetlands, lower large pool; as clouds among Veronica and sedges at wall	4 Feb 2008
0929	*Pithophora*?; *Spirogyra* sp; *Hydrodictyon*; *Botryococcus*.	Lower Tuggeranong Ck, ACT	18 Fen 2008
0930	*Oedogonium capillare/crassum* like	Murrumbidgee R, Red Rock Gorge, lower shute (MU193); in deep rockworn rockpool.	28 Feb 2008
0931	*Spirogyra* sp., 1–2 chlp., spores?; coccoid something.	Murrumbidgee R, Red Rock Gorge, lower shute (MU193); off-stream semipermanent pool	28 Feb 2008
0932	*Cladophora glomerata*	Murrumbidgee R, Red Rock Gorge, lower shute (MU193); on rocks of the lower shute, in water and splash zone.	28 Feb 2008
0933	*Zygnema/Zygogonium*	Murrumbidgee R, Red Rock Gorge, lower shute (MU193); mud of ephemeral wetland in flood-runner.	28 Feb 2008
0934	*Spirogyra* '*maxima*-group' apomictic spores; *Zygnema* sp.	Freshford Ck, Red Rock Gorge, Murrumbidgee R., ACT (MU195); clouds in chain-of-ponds above the waterfall at the mouth of the creek.	29Feb 2008
0935	*Spirogyra* 2 spp sterile	Cotter R., below the campground; clouds in water, in pools below the weir and fish race	15 Mar 2008
0936	*Oedogonium* sp	Cotter R, on rocks at mouth of the fishrace.	15 Mar 2008
0937	? *Cyanodactylon*; *Microspora* with long fine cells; *Klebsormidium* sp: *Mougeotia* sp; desmids (*Hyalotheca*; 2+ *Mirasterias;* 2-3 *Closterium*; *Cosmarium*; *Euastrum*; 2 *Netrium*…)	Gibraltar Ck, bog beside creek in fen at top, Corin Rd.	19th March 2008
0938	*Hydrodictyon reticulatum*; *Pithophora oedogonia* (sporing well); *Cladophora glomerata*	Lower Tuggeranong Ck, at the ford	19 Mar 2008
0940	*Chaetophora* sp; *Klebsormidium* sp.	Orroral R., at the little ford above the footbridge. + Olga Petkovic	6 Apr 2008
0941	*Microspora* sp; *Sirogonium* sp;	New Station Ck, above the travertine falls + Luke Johnston	18 Apr 2008
0942	*Chara* sp	New Station Ck, above the travertine falls + Luke Johnston	18 Apr 2008
0943	*Spirogyra* sp, 1 chlp., plain, sterile	Gibraltar Ck, at the boundary of the former pine forest and 'Gibraltar Creek'	23 Jul 2008

		station	
0944	*Spirogyra* sp; *Zygnema* sp; *Oedogonium undulatum*, but not in spore.	Conder Wetlands, Tom Roberts Dr, Conder + Mrs Marriot and son Nate	28 Jul 2008
0945	*Mougeotia* spp.; *Spirogyra* spp.; *Zygnema* spp; *Klebsormidium* sp	Reedy Creek, between Bungendore and Braidwood, on Steve Welch' place S.S.Welch	4 Aug 2008
0946			
0947	*Stigeoclonium helveticum*; *Melosira varians*	Point Hut Crossing, Murrumbidgee R; riffle just above the west beach + W Akhurst	19 Aug 2008
0948			
0949	*Stigeoclonium tenue*; *desmids*; *Melosira varians*	Paddy's River, ford above bridge on Tidbinbilla Rd	25 Aug 2008

Appendix 2: Records of recent collections of Filamentous Algae in the Upper Murrumbidgee Catchment Area.

Although passing reference to filamentous algae have been made in several of the many reports on the Murrumbidgee and its associated waterways in and around the ACT, there has never been a consistent effort to collect and identify these organisms that has been circulated. Collections of freshwater algae held with the other cryptogams at the Australian National Botanic Gardens herbarium include almost no local specimens. Thus even the passing references to Spirogyra and blanket weed in the reports mentioned above are difficult to verify.

The tables presented below document the filamentous algae found in recent collections made mainly by the author in the general area of the Southern Tablelands. The collection numbers [SS0000 form] are just an accounting system for the alcohol preserved collections and their accompanying microscope slides made by the author. This collection has not been lodged anywhere to date, but it is probably best to have it included in the substantial and catalogued collection at NSW (the National Herbarium of New South Wales) rather than start a small, and easily misplaced collection at CANB.

The tables are arranged in systematic order, and the sub-tables contain the local members of families or orders as appropriate.

CYANOPROKARYOTA

[Determination to species in most genera in this group of organisms is a highly specialised skill, and requires morphological, ecological and microbiological analysis of the living organism.]

Table1a: Synechococcales and Pseudanabaenales

Name	Cooma	SACTCG	Molonglo	Ginninderra	Yass
Geitlerinema splendidum	SS0844		SS0833		
Geitlerinema/Jaaginema		SS0912			
Heteroleibleinia	SS0845		SS0834		

Table 1b: Chroococcales

Name	Cooma	SACTCG	Molonglo	Ginninderra	Yass
Limnococcus			SS0834		
Chamaesiphon			SS0834		

Table 1c: Oscillatoriales and Phormidiales

Name	Cooma	SACTCG	Molonglo	Ginninderra	Yass
Phormidium sp	SS0844	SS0926	SS0878		
P. aerugineo-caeruleum	SS0847				
P. autumnale		SS0873			
P. amoenium			SS0878,0879		
Microcoleus paludosus		SS0924			
Arthrospira sp	SS0844				
Oscilliatoria froelichii	SS0840				
O. sancta	SS0847				
O. limosa	SS0847				
O. perornata		SS0890			
Oscillatoria sp.		SS0924			SS0825, SS0827
Lyngbya sp		SS0912			

Table 1d: Nostocales (incl. Stigonemales)

Name	Cooma	SACTCG	Molonglo	Ginninderra	Yass
Calothrix/Dichothrix sp		SS0908			
Gloeotrichia pisum		SS0861			
Rivularia aquatica		SS0861			
Tolypothrix distorta		SS0861			
Hydrocoryne sp.	SS0841; SS0844;				

	SS0845				
Cylindrospermum sp.	SS0862		SS0889		
Nodularia spumigera	SS0844				
Nostoc commune		SS0860	SS0882		
N. pruniforme		SS0907			
N. verrucosum			SS0884		

RHODOPHYTA

Table 2.

Name	Cooma	SACTCG	Molonglo	Ginninderra	Yass
Compsopogon coeruleus			SS0563; SS0564		
Batrachospermum atrum			SS0565		
Audouinella spp		SS0900	SS0563,4, 5.		

Bacillariophyceae

Table 3.

Name	Cooma	SACTCG	Molonglo	Ginninderra	Yass
Melosira varians		SS0870; SS0873; SS0911; SS0947; SS0949;		SS0866	
Synedra/Fragillaria		SS0911		SS0866	

Xanthophyceae

Table 4.

Name	Cooma	SACTCG	Molonglo	Ginninderra	Yass
Vaucheria sp.		SS0874		SS0868	
Vaucheria prona			SS0566		
Tribonema sp				SS0867	

CHLOROPHYTA

Table 5a: Tetrasporales

Name	Cooma	SACTCG	Molonglo	Ginninderra	Yass
Parallela novae zealandiae		SS0872			

Table 5b: Microsporaceae & Hydrodictyaceae

Name	Cooma	SACTCG	Molonglo	Ginninderra	Yass
Microspora sp		SS0909			

Microspora stagnorum			SS0833		
Hydrodictyon reticulatum		SS0923; SS0927; SS0929			

Table 5c: Chaetophoraceae

Name	Cooma	SACTCG	Molonglo	Ginninderra	Yass
Uronema confervicola			SS0568		
Stigeoclonium tenue		SS0949		SS0867	
S. helveticum		SS0947			
Chaetophora elegans		SS0862?;SS0908; SS0939			
C. attenuata				SS0894	
Draparnaldia mutabilis		SS0872; SS0887			
Draparnaldiopsis sp		SS08612			
Schizomeris leibleinii		SS0858			

Table 5d: Cladophoraceae

Name	Cooma	SACTCG	Molonglo	Ginninderra	Yass
Rhizoclonium riparium		SS0864; SS0940	SS0865		
Pithophora oedogonia		SS0929	SS0865		
Cladophora glomerata		SS0863; SS0905; SS0932			
Cladophora aegagropila		SS0913			

Table 5e: Oedogoniaceae

Name	Cooma	SACTCG	Molonglo	Ginninderra	Yass
Bulbochaete long cell					
Bulbochaete short cell					
Oedogonium sp.	SSo843; SS0845	SS0858; SS0863; SS0872; SS0888; SS0899; SS0902; SS0911; SS0915; SS0936		SS0866; SS0867	

Oe. undulatum		SS0944		22.10.07	
Oe. cardiacum		SS0886			
Oe. capillare		SS0892; SS0930	SS0637		
Oe. cap/crassum		SS0930		22.10.07	
Oe. vaucherii		SS0921			

CHAROPHYTA

Table 6a: Klebsormidiaceae

Name	Cooma	SACTCG	Molonglo	Ginninderra	Yass
Klebsormidium sp.		SS0939	SS0877		
Klebsormidium/Binuclearia sp				SS0867	
Ulothrix sp.			SS0637		

Table 6b: Zygnemales

Name	Cooma	SACTCG	Molonglo	Ginninderra	Yass
Mougeotia sp.	SS0843-5	SS0900; SS0928; SS0937		SS0893;SS0895	SS0825,6
M. viridis		SS0888			
Sirogonium floridianum		SS0889; SS0941;			
S. with wrinkled spores		SS0909			
Spirogyra sp.		SS0869; SS0871; SS0872; SS0888; SS0890, 1;SS0915,6; SS0925; SS0928; SS0929; SS0931; SS0935; SS0943; SS0944.	SS0510;SS0564;SS0590;SS0637; SS0865		SS0825
Spirogyra bourrellyana					SS0827
S. lateral conjugation					
S. singularis/juergensii		SS0891; SS0892			
S. maxima group		SS0934		SS0896	

S. fluviatilis/rivularis		SS0922			
S. replicate, fertile		SS0900			
Zygnema sp.		SS0872; SS0914; SS0919; SS0926; SS0928; SS0933; SS0934; SS0944		SS0895,6.	
Z. porcatum				SS0893	
Z. reticulosporum		SS0888; SS0898			
Hyalotheca sp.		SS0862; SS0937			
Desmidium sp.				SS0893	

There are some other collections of filamentous freshwater algae in the databases of the National Herbarium of New South Wales. Where a catchment in the Upper Murrumbidgee Catchment area has few records, it should not be interpreted as an absence of algae, but rather as a paucity of collecting. See Appendix 1 for locality and other information.