

# Contents

<b>1</b>	<b>Introduction</b>	<b>1</b>
1.1	Collecting and Identifying Algae Samples . . . . .	3
1.2	Recognizing the Algal Divisions . . . . .	5
1.3	Introduction to the Cyanobacteria . . . . .	7
	Preliminary Key to the Cyanobacteria . . . . .	9
<b>2</b>	<b>Solitary and Colonial Cyanobacteria</b>	<b>23</b>
2.1	<i>Aphanocapsa</i> . . . . .	28
2.2	<i>Aphanothece</i> . . . . .	39
2.3	<i>Chamaesiphon</i> . . . . .	48
2.4	<i>Chroococcus</i> . . . . .	55
2.5	<i>Coelosphaerium</i> . . . . .	72
2.6	<i>Cyanodictyon</i> . . . . .	78
2.7	<i>Cyanophanon</i> . . . . .	82
2.8	<i>Cyanothece</i> . . . . .	90
2.9	<i>Eucapsis</i> . . . . .	101
2.10	<i>Geitleribactron</i> . . . . .	107
2.11	<i>Gomphosphaeria</i> . . . . .	111

2.12	<i>Merismopedia</i>	118
2.13	<i>Microcystis</i>	141
2.14	<i>Pannus</i>	155
2.15	<i>Rhabdoderma</i> and <i>Rhabdogloea</i>	159
2.16	<i>Snowella</i>	168
2.17	<i>Stichosiphon</i>	173
2.18	<i>Woronichinia</i>	181
<b>3</b>	<b>Fil. Cyanobacteria With Heterocysts</b>	<b>193</b>
3.1	<i>Anabaena</i> and <i>Dolichospermum</i>	198
3.2	<i>Anabaenopsis</i>	248
3.3	<i>Aphanizomenon</i>	250
3.4	<i>Calothrix</i>	257
3.5	<i>Cylindrospermopsis</i>	266
3.6	<i>Cylindrospermum</i>	273
3.7	<i>Dichothrix</i>	280
3.8	<i>Fischerella</i>	290
3.9	<i>Gloeotrichia</i>	293
3.10	<i>Hapalosiphon</i>	301
3.11	<i>Nostoc</i>	309
3.12	<i>Scytonema</i>	320
3.13	<i>Stigonema</i>	329
3.14	<i>Tolypothrix</i>	343
<b>4</b>	<b>Fil. Cyanobacteria Without Heterocysts</b>	<b>353</b>
4.1	<i>Arthrospira</i> and <i>Spirulina</i>	356

4.2	<i>Borzia</i>	368
4.3	<i>Geitlerinema</i>	372
4.4	<i>Lyngbya</i>	378
4.5	<i>Microcoleus</i>	390
4.6	<i>Oscillatoria</i>	394
4.7	<i>Phormidium</i> and similar taxa	414
4.8	<i>Planktothrix</i>	442
4.9	<i>Pseudanabaena</i>	447
4.10	<i>Schizothrix</i>	462
4.11	<i>Tychonema</i>	465
<b>5</b>	<b>Biovolume Calculations</b>	<b>475</b>
<b>6</b>	<b>References</b>	<b>481</b>