

LIST OF PLATES

Sr. No.	Plate Name	Page No.
1	Photographs of Free Floating Hydrophytes (A) <i>Spirodela polyrrhiza</i> L. (B) <i>Azolla pinnata</i> (C) <i>Lemna triscula</i> L. (D) <i>Marsilea quadrifolia</i> L.	84
2	Photographs of Free Floating Hydrophytes (A) <i>Aponogeton natans</i> (B) <i>Nymphoides indica</i> (C) <i>Ceratophyllum submersum</i> L. (D) <i>Pistia stratiotes</i> L.	85
3	Photographs of Free Floating Hydrophytes (A) <i>Ipomoea aquatica</i> (B) <i>Nelumbo nucifera</i> (C) <i>Nymphaea nouchali</i> (D) <i>Hygroryza aristata</i>	86
4	Photographs of Submerged Hydrophytes (A) <i>Utricularia vulgaris</i> L. (B) <i>Zannichellia palustris</i> L. (C) <i>Hydrilla verticillata</i> L. (D) <i>Vallisneria spiralis</i> L.	88
5	Photographs of Submerged Rooted Hydrophyte (A) <i>Limnophyton obtusifolium</i> (B) <i>Eichhornia crassipes</i> (C) <i>Colocasia esculenta</i> (D) <i>Potamogeton crispus</i> L.	90
6	Photographs of Submerged Rooted Hydrophyte (A) <i>Potamogeton perfoliatus</i> L. (B) <i>Potamogeton</i> Spp.	91
7	Photographs of Wetland Hydrophytes (A) <i>Caesulia axillaris</i> L. (B) <i>Chloris barbata</i> Sw. (C) <i>Gomphrena celosioides</i> (D) <i>Dactyloctenium aegyptium</i>	93
8	Photographs of Wetland Hydrophytes (A) <i>Amaranthus spinosus</i> L. (B) <i>Sphaeranthus indicus</i> L. (C) <i>Peristrophe paniculata</i> (D) <i>Limnophila gratioloides</i>	94
9	Photographs of Wetland Hydrophytes (A) <i>Bergia ammannioides</i> (B) <i>Cressa cretica</i> L. (C) <i>Phylla nodiflora</i> L. (D) <i>Elaeocarpus variabilis</i> Zmarzty	95
10	Photographs of Wetland Hydrophytes (A) <i>Aeschynomene indica</i> L. (B) <i>Malvastrum coromandelianum</i> (C) <i>Melgmium indica</i> (D) <i>Paspalidium geminatum</i>	96
11	Photographs of Wetland Hydrophytes (A) <i>Alhagi pseudalhagi</i> (B) <i>Eleocharis dulcis</i> (C) <i>Scripus articulatus</i> L. (D) <i>Ischaemum rugosum</i> Salisb.	97
12	Photographs of Wetland Hydrophytes (A) <i>Cyperus difformis</i> L. (B) <i>Ammania baccifera</i> L. (C) <i>Alternanthera ficoidea</i> (L.) (D) <i>Alternanthera pungens</i> Kunth.	98
13	Photographs of Wetland Hydrophytes (A) <i>Xanthium spinosum</i> L. (B) <i>Cyperus</i> Spp. (C) <i>Verbascum chinense</i> (D) <i>Hyptis suaveolens</i>	99

Sr. No.	Plate Name	Page No.
14	Photographs of Wetland Hydrophytes (A) <i>Abutilon indicum</i> (B) <i>Croton abaitensis</i> (C) <i>Barleria prionitis</i> L. (D) <i>Woodfordia fruticosa</i> L.	100
15	Photographs of Wetland Hydrophytes (A) <i>Achyranthes aspera</i> L. (B) <i>Lindenbergia muraria</i> (C) <i>Polygonum glabrum</i> (D) <i>Eleocharis atropurpurea</i>	101
16	Photographs of Wetland Hydrophytes (A) <i>Paspalum Spp.</i> (B) <i>Urena lobata</i> L. (C) <i>Echinops echinatus</i> (D) <i>Blumea laciniata</i>	102
17	Photographs of Wetland Hydrophytes (A) <i>Blumea lacera</i> (B) <i>Blumea Spp.</i> (C) <i>Spilanthes acmella</i> (D) <i>Cocculus hirsutus</i>	103
18	Photographs of Wetland Hydrophytes (A) <i>Lindernia oppositifolia</i> (B) <i>Vernonia cinerea</i> (C) <i>Aerva lanata</i> L. (D) <i>Fimbristylis bisumbellata</i>	104
19	Photographs of Wetland Hydrophytes (A) <i>Crotalaria herpetoclada</i> (B) <i>Phyllanthus virgatus</i> (C) <i>Euphorbia prostate</i> (D) <i>Rungia pectinata</i>	105
20	Photographs of Wetland Hydrophytes (A) <i>Tridax procumbens</i> (B) <i>Sida alba</i> L. (C) <i>Triumfetta rhomboidea</i> (D) <i>Cyperus haspan</i> L.	106
21	Photographs of Wetland Hydrophytes (A) <i>Solanum surattense</i> (B) <i>Ludwigia perennis</i> L. (C) <i>Vernonia cinerea</i> (D) <i>Phyllanthus amarus</i>	107
22	Photographs of Wetland Hydrophytes (A) <i>Alternanthera ficoidea</i> (B) <i>Paspalum distichum</i> L. (C) <i>Ludwigia octavalvis</i> L. (D) <i>Hygrophila polysperma</i>	108
23	Photographs of Wetland Hydrophytes (A) <i>Ammania baccifera</i> L. (B) <i>Alternanthera pungens</i> (C) <i>Commelina benghalensis</i> (D) <i>Typha angustifolia</i> L.	109
24	Gene sequence, ABI chromatogram, Illustrative Barcode and taxonomy of (A) <i>Solanum virginianum</i> (B) <i>Potamogeton crispus</i>	115
25	Gene sequence, ABI chromatogram, Illustrative Barcode and taxonomy of (A) <i>Ludwigia perrium</i> (B) <i>Vernonia cinerea</i>	116
26	Gene sequence, ABI chromatogram, Illustrative Barcode and taxonomy of (A) <i>Phyllanthus amarus</i> (B) <i>Pistia stratiotes</i>	117
27	Gene sequence, ABI chromatogram, Illustrative Barcode and taxonomy of (A) <i>Hydrilla verticillata</i> L. (B) <i>Paspalum Spp.</i>	118

Sr. No.	Plate Name	Page No.
28	Gene sequence, ABI chromatogram, Illustrative Barcode and taxonomy of (A) <i>Ludwigia octavalvis</i> (B) <i>Ipomoea aquatica</i>	119
29	Gene sequence, ABI chromatogram, Illustrative Barcode and taxonomy of (A) <i>Hygrophila auriculata</i> (B) <i>Nelumbo</i>	120
30	Gene sequence, ABI chromatogram, Illustrative Barcode and taxonomy of (A) <i>Vallisneria spiralis</i> (B) <i>Equisetum Spp.</i>	121
31	Gene sequence, ABI chromatogram, Illustrative Barcode and taxonomy of (A) <i>Chloris barbata</i> (B) <i>Spirodela polyrhiza</i>	122
32	Gene sequence, ABI chromatogram, Illustrative Barcode and taxonomy of (A) <i>Hygroryza aristata</i> (B) <i>Azolla pinnata</i>	123
33	Gene sequence, ABI chromatogram, Illustrative Barcode and taxonomy of (A) <i>Limnophyton obtusifolium</i> (B) <i>Colocasia esculanta</i>	124
34	Gene sequence, ABI chromatogram, Illustrative Barcode and taxonomy of (A) <i>Dactyloctenium aegyptium</i> (B) <i>Amaranthus spinosus</i>	125
35	Gene sequence, ABI chromatogram, Illustrative Barcode and taxonomy of (A) <i>Sphaeranthus indicus</i> (B) <i>Peristrophe paniculata</i>	126
36	Gene sequence, ABI chromatogram, Illustrative Barcode and taxonomy of (A) <i>Limnophila indica</i> (B) <i>Marsilea quadrifolia</i>	127
37	Gene sequence, ABI chromatogram, Illustrative Barcode and taxonomy of (A) <i>Utricularia vulgaris</i> (B) <i>Gomphrena celosiodes</i>	128
38	Gene sequence, ABI chromatogram, Illustrative Barcode and taxonomy of (A) <i>Bergia Spp.</i> (B) <i>Cressa cretica</i>	129
39	Gene sequence, ABI chromatogram, Illustrative Barcode and taxonomy of (A) <i>Phyla nodiflora</i> (B) <i>Elaeocarpus variabilis</i>	130
40	Gene sequence, ABI chromatogram, Illustrative Barcode and taxonomy of (A) <i>Aeschynomene indica</i> (B) <i>Eleocharis dulcis</i>	131
41	Gene sequence, ABI chromatogram, Illustrative Barcode and taxonomy of (A) <i>Ischaemum rugosum</i> (B) <i>Cyperus difformis</i>	132
42	Gene sequence, ABI chromatogram, Illustrative Barcode and taxonomy of (A) <i>Alternanthera philoxeroides</i> (B) <i>Xanthium Spp.</i>	133
43	Gene sequence, ABI chromatogram, Illustrative Barcode and taxonomy of (A) <i>Cyperus Spp.</i> (B) <i>Hygrophila Spp.</i>	134
44	Gene sequence, ABI chromatogram, Illustrative Barcode and taxonomy of (A) <i>Potamogeton natans</i> (B) <i>Lemna triscula</i> L.	135
45	Gene sequence, ABI chromatogram, Illustrative Barcode and taxonomy of (A) <i>Abutilon indicum</i> (B) <i>Croton aequatoris</i>	136
46	Gene sequence, ABI chromatogram, Illustrative Barcode and taxonomy of (A) <i>Barleria prioniti</i> (B) <i>Persicaria glabra</i>	137
47	Gene sequence, ABI chromatogram, Illustrative Barcode and taxonomy of (A) <i>Eleocharis atropurpurea</i> (B) <i>Blumea Spp.</i>	138

Sr. No.	Plate Name	Page No.
48	Gene sequence, ABI chromatogram, Illustrative Barcode and taxonomy of (A) <i>Spilanthes acmella</i> (B) <i>Cocculus hirsutus</i>	139
49	Gene sequence, ABI chromatogram, Illustrative Barcode and taxonomy of (A) <i>Lindernia Spp.</i> (B) <i>Cyanthilium cinereum</i>	140
50	Gene sequence, ABI chromatogram, Illustrative Barcode and taxonomy of (A) <i>Aerva lanata</i> (B) <i>Rungia</i>	141
51	Gene sequence, ABI chromatogram, Illustrative Barcode and taxonomy of (A) <i>Tridax procumbens</i> (B) <i>Sida rhombifolia</i>	142
52	Gene sequence, ABI chromatogram, Illustrative Barcode and taxonomy of (A) <i>Pentanema indicum</i>	143
53	Plant cultured in laboratory (A) <i>Lemna polyrrhiza</i> L. (B) <i>Lemna triscula</i> L.	153
54	Light microscopy of <i>L. polyrrhiza</i> L. (A) Mesophyll cellof control plant (B) Epidermis of control plant (C) Mesophyll cell of treated plant (D) Epidermis of treated plant	190
55	Light microscopy of <i>L. triscula</i> L. (A) Epidermis of control plant (B) Aerenchyma of control plant (C) Vasculature of control plant (D) Epidermis of treated plant (E) Aerenchyma of Treated Plant (F) Vasculature of treated plant	192
56	SEM Micrograph of <i>L. polyrrhiza</i> L.	193
57	SEM Micrograph of <i>L. polyrrhiza</i> L.	194
58	SEM Micrograph of <i>L. polyrrhiza</i> L.	195
59	SEM Micrograph of <i>L. polyrrhiza</i> L.	196