

35.—MARSH AND AQUATIC PLANTS OF THE NORTHERN UNITED STATES, MANY OF WHICH ARE SUITABLE FOR CARP PONDS.

By LESTER F. WARD.

The species indicated by the heavy-faced type are strictly aquatic. Those which are especially recommended by Dr. Hessel for carp ponds are Nos. 7, 8, 18, 19, 20, 21, 22, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 67, 81, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114. Those which occur near Washington are numbers 2, 4, 6, 7, 9, 11, 13, 14, 15, 16, 17, 23, 25, 26, 27, 29, 31, 32, 35, 36, 38, 40, 41, 51, 58, 60, 61, 63, 65, 66, 68, 69, 72, 73, 74, 75, 76, 77, 78, 80, 81, 82, 83, 84, 85, 86, 89, 95, 96, 97, 100, 104, 105, 106, 116, 121, 123, 125, 128, 129, 131, 133, 134, 135, 136, 138, 143, 145, 147, 151, 154, 155, 157, 158, 160, 161, 162, 166, 168, 171, 174, 178, 180.

RANUNCULACEÆ.

CROWFOOT FAMILY.

1. *Ranunculus hederaceus*, L. Introduced near Hampton, Va.
2. *Ranunculus ambigens*, Watson. [*R. alismaefolius*, Geyer.] Water-Plantain Spearwort. Eastern Branch marsh, D. C.; also marsh near the mouth of Hunting Creek, Va.
3. *Ranunculus flammula*, L. Smaller Spearwort. Shore of Lake Ontario and northward.
4. *Ranunculus pusillus*, Poir. Small Spearwort. Potomac Flats above Eads' Mill, D. C.
5. *Ranunculus cymbalaria*, Pursh. Seaside Crowfoot. Sandy shores from New Jersey northward, and along the great lakes to Illinois and westward.
6. *Ranunculus sceleratus*, L. Cursed Crowfoot. Common everywhere.

NYMPHÆACEÆ.

WATER-LILY FAMILY.

7. *Brasenia peltata*, Pursh. Water-Shield. Carberry Meadows below Eads' Mill, D. C.
8. *Nelumbium luteum*, Willd. Yellow Nelumbo, or Water Chinquepin. Waters of the Western and Southern States; rare in the Middle States; introduced into the Delaware below Philadelphia. Near Woodstown and Sussex County, New Jersey. Big Sodus Bay, Lake Ontario, and in the Connecticut near Lyme.

9. **Nuphar advena*, Ait. Yellow Pond-Lily. Spatter Dock. Common everywhere.
10. **Nuphar sagittifolium*, Pursh. North Carolina and southward.

CRUCIFERÆ.

MUSTARD FAMILY.

11. *Cardamine rhomboidea*, D. C. Spring-Cress. Common.
12. *Cardamine rotundifolia*, Michx. Mountain Water-Cress. Pennsylvania, and southward along the mountains.
13. *Cardamine hirsuta*, L. Bitter Cress. Common.

HYPERICACEÆ.

ST. JOHN'S-WORT FAMILY.

14. *Elodes Virginica*, Nutt. Marsh St. John's-wort. Common.

LEGUMINOSÆ.

PULSE FAMILY.

15. *Lathyrus palustris*, L. Marsh Vetchling. New England to Pennsylvania, Illinois, and northward.

CRASSULACEÆ.

ORPINE FAMILY.

16. *Penthorum sedoides*, L. Ditch Stone-crop. Common everywhere.

HALORAGEÆ.

WATER-MILFOIL FAMILY.

17. *Myriophyllum spicatum*, L. Water-Milfoil. Below Alexandria, Va.
18. *Myriophyllum verticillatum*, L. Common.
19. *Myriophyllum heterophyllum*, Michx. Lakes and rivers, from Northern New York, westward and southward.
20. *Myriophyllum scabratum*, Michx. From Southern New England and Ohio, southward.
21. *Myriophyllum ambiguum*, Nutt. Massachusetts to New Jersey, Pennsylvania and southward, near the coast.
22. *Myriophyllum tenellum*, Bigelow. Northern New York, New England, and northward.
23. *Proserpinaca palustris*, L. Mermaid-weed. Not rare.
24. *Proserpinaca pectinacea*, Lam. Swamps near the coast.

* Pronounced injurious to carp ponds by Dr. Hessel.

ONAGRACEÆ.

EVENING PRIMROSE FAMILY.

- 25 *Jussiaea decurrens*, D. C. Virginia to Illinois and southward.
 26. *Ludwigia palustris*, Ell. Water Purslane. Common; also in Europe.

LYTHRACEÆ.

LOOSESTRIFE FAMILY.

27. *Ammannia humilis*, Michx. Tooth-cup. Massachusetts to Michigan, Illinois, and southward. Flats of Potomac, D. C.
 28 *Ammannia latifolia*, L. Ohio, Illinois, and southward.
 29. *Nesaea verticillata*, H. B. K. Swamp Loosestrife. Flats of Potomac.

UMBELLIFERÆ.

PARSLEY FAMILY.

30. *Hydrocotyle repanda*, Pers. Water Pennywort. Maryland and southward.
 31. *Hydrocotyle ranunculoides*, L. Shores of Potomac, Maryland.
 32. *Hydrocotyle Americana*, L. Common, northward.
 33. *Hydrocotyle umbellata*, L. Massachusetts, on the coast to Pennsylvania.
 34. *Hydrocotyle interrupta*, Muhl. Massachusetts to Virginia and southward along the coast.
 35. *Eryngium Virginianum*, Lam. Eryngo. Button Snakeroot. New Jersey and southward.
 36. *Discopleura capillacea*, D. C. Mock Bishop-weed. Massachusetts to Virginia, and southward. Near Custis Spring, Va.
 37. *Cicuta bulbifera*, L. Water-Hemlock. Common, northward.
 38. *Sium cicutæfolium*, Gmel. Water-Parsnip. Common.
 39. *Sium angustifolium*, L. Massachusetts, Michigan, Illinois, westward. Europe.

COMPOSITÆ.

COMPOSITE FAMILY.

40. *Bidens cernua*, L. Smaller Bur-Marigold. Virginia to Wisconsin and southward.
 41. *Bidens chrysanthemoides*, Michx. Larger Bur-Marigold. Common.
 42. **Bidens Beckii*, Torr. Water Marigold. Massachusetts to New Jersey, Illinois, and northward.

* Pronounced injurious to carp ponds by Dr. Hessel.

LOBELIACEÆ.

LOBELIA FAMILY.

43. *Lobelia paludosa*, Nutt. Delaware and southward.
 44. *Lobelia Dortmanna*, L. Water Lobelia. Northern Pennsylvania to New England.

LENTIBULACEÆ.

BLADDERWORT FAMILY.

45. *Utricularia inflata*, Walt. Inflated Bladderwort. Maine to Virginia and southward.
 46. *Utricularia minor*, L. Smaller Bladderwort. Rhode Island to Illinois and northward.
 47. *Utricularia clandestina*, Nutt. Eastern New England, Western New York, and New Jersey.
 48. *Utricularia intermedia*, Hayne. New England and New Jersey to Ohio, Wisconsin, and northward.
 49. *Utricularia striata*, Le Conte. Long Island, New Jersey, and southward.
 50. *Utricularia biflora*, Lam. Illinois and southward.
 51. *Utricularia gibba*, L. Virginia to Massachusetts, Northern New York and Northern Illinois.
 52. *Utricularia purpurea*, Walt. Maine to Virginia and southward.
 53. *Utricularia resupinata*, Greene. Eastern Maine to Rhode Island.
 54. *Utricularia cornuta*, Michx. Common.
 55. *Utricularia subulata*, L. New Jersey, Virginia and southward.

SCROPHULARIACEÆ.

FIGWORT FAMILY.

56. *Herpestis rotundifolia*, Pursh. Illinois and southward.
 57. *Herpestis amplexicaulis*, Pursh. New Jersey and southward.
 58. *Gratiola Virginiana*, L. Hedge-Hyssop. Common.
 59. *Gratiola sphaerocarpa*, Ell. New Jersey to Illinois and southward.
 60. *Ilysanthes gratioloides*, Benth. False Pimpernel. Common.
 61. *Micranthemum Nuttallii*, Gray. Banks of the Delaware River and southward.
 62. *Limosella aquatica*, L., var. *tenuifolia* Hoffm. From New Jersey northward.
 63. *Gerardia purpurea*, L. Purple Gerardia. Maine to Wisconsin and southward.

LABIATÆ.

MINT FAMILY.

64. *Mentha rotundifolia*, L. Round-leaved Mint. Maine, New Jersey, and Pennsylvania.
65. *Mentha viridis*, L. Spearmint. Common (natural from Europe).
66. *Mentha piperita*, L. Common (natural from Europe).
67. *Mentha aquatica*, L. Water Mint. Delaware.
68. *Lycopus Virginicus*, L. Bugle-weed. Common, especially northward.
69. *Physotegia Virginiana*, Benth. False Dragonhead. Western New York to Wisconsin and southward. Rocks, Potomac shore.

GENTIANACEÆ.

GENTIAN FAMILY.

70. *Limnanthemum lacunosum*, Griesbach. From Maine and New York to Virginia and southward.
71. *Limnanthemum trachyspermum*, Gray. Floating Heart. Maryland and southward.

POLYGONACEÆ.

BUCKWHEAT FAMILY.

72. *Polygonum arifolium*, L. Halberd-leaved Tear-thumb.
73. *Polygonum hydropiperoides*, Michx. Mild Water-pepper.
74. *Polygonum sagittatum*, L. Arrow-leaved Tear-thumb. Common.

PIPERACEÆ.

75. *Saururus*, L. Lizard's-tail. Common.

URTICACEÆ.

NETTLE FAMILY.

76. *Pilea pumila*, Gray. Richweed; Clearweed.
77. *Bœhmeria cylindrica*, Willd. False Nettle. Common.

ARACEÆ.

ARUM FAMILY.

78. *Peltandra Virginica*, Raf. Arrow Arum. Common.
79. *Calla palustris*, L. Water Arum. New England to Pennsylvania, Wisconsin, and common northward.
80. *Orontium aquaticum*, L. Golden-Club. Massachusetts to Virginia, and southward.

LEMNACEÆ.

DUCK-WEED FAMILY.

81. *Lemna polyrrhiza*, L. Duck-weed; Duck's Meat.

TYPHACEÆ.

CAT-TAIL FAMILY.

82. *Typha latifolia*, L. Common Cat-tail; Reed-mace. Common.
 83. *Typha angustifolia*, L. Small Cat-tail; Narrow-leaved Cat-tail.
 (Europe.)
 84. *Sparganium eurycarpum*, Eng'. Bur-reed. New England and Pennsylvania, northward and westward.
 85. *Sparganium simplex*, Hudson. New England and northward.
 (Europe.)

NAIADACEÆ.

PONDWEED FAMILY.

86. *Naias flexilis*, Rostk. Naiad. Common. (Europe.)
 87. *Zannichellia palustris*, Micheli. Horned Pondweed. Rather rare.
 (Europe.)
 88. *Potamogeton amplifolius*, Tuckerman. Pondweed. Not rare.
 89. *Potamogeton Claytonii*, Tuckerman. Common.
 90. *Potamogeton compressus*, L. Not common.
 91. *Potamogeton crispus*, L. Delaware, Pennsylvania, and New Jersey.
 92. *Potamogeton gramineus*, L. The commonest form. (Europe.)
 93. *Potamogeton gramineus*, L., var. *spathulæformis*.
 94. *Potamogeton gramineus*, L., var. *myriophyllus*, R.
 95. *Potamogeton hybridus*, Michx.
 96. *Potamogeton lonchites*, Tuckerman. New England to Illinois.
 97. *Potamogeton lucens*, L. Not common. In the Potomac.
 98. *Potamogeton lucens*, L., var. *minor*, Nolte.
 99. *Potamogeton lucens*, L., var. *Connecticutensis*.
 100. *Potamogeton natans*, L. Common. (Europe.)
 101. *Potamogeton Niagarensis*, Tuck. Rapids above Niagara Falls.
 102. *Potamogeton Oakesianus*, Robbins. Not rare in Eastern Massachusetts.
 103. *Potamogeton obtusifolius*, Mertens & Koch. Very rare. Pennsylvania and Michigan.
 104. *Potamogeton pauciflorus*, Pursh. Common.
 105. *Potamogeton pectinatus*, L. Common.
 106. *Potamogeton perfoliatus*, L. Common.
 107. *Potamogeton prælongus*, Wulfen. East New England and along the Great Lakes to Lake Superior.

108. *Potamogeton pulcher*, Tuckerman. Eastern Massachusetts, Missouri, Georgia.
109. *Potamogeton pusillus*, L. Very common, especially southward.
110. *Potamogeton Robbinsii*, Oakes. New England, New York, Pennsylvania, and Ohio.
111. *Potamogeton rufescens*, Schrad. New England to Pennsylvania, Illinois, and especially northward.
112. *Potamogeton spirillus*, Tuckerman. Maine to Lake Superior and Virginia.
113. *Potamogeton Tuckermani*, Robbins. White Mountains, New Hampshire, to Pennsylvania.
114. *Potamogeton Vaseyi*, Robbins. Illinois, Massachusetts.

ALISMACEÆ.

WATER-PLANTAIN FAMILY.

115. *Scheuchzeria palustris*, L. New England to Pennsylvania, Illinois, and northward.
116. *Alisma plantago*, L., var. *Americanum*, Gray.
117. *Echinodorus parvulus*, Engelm. Massachusetts and Michigan to Illinois.
118. *Echinodorus rostratus*, Engelm. Illinois and southward.
119. *Echinodorus radicans*, Engelm. Illinois and southward.
120. *Sagittaria lancifolia*, L. Arrowhead. Virginia, and southward to the West Indies.
121. *Sagittaria variabilis*, Engelm. New Jersey and southward.
122. *Sagittaria caleyna*, Engelm. Maine to Delaware, Wisconsin, and southward.
123. *Sagittaria heterophylla*, Pursh.
124. *Sagittaria graminea*, Michx. Rather common, especially southward.
125. *Sagittaria pusilla*, Nutt. From Eastern New Jersey and Philadelphia southward, near the coast.
126. *Sagittaria natans*, Michx.

HYDROCHARIDACEÆ.

FROG'S-BIT FAMILY.

127. *Limnobium Spongia*, Richard. American frog's-bit. Lake Ontario, Illinois, and in the Southern States.

PONTEDERIACEÆ.

PICKEREL-WEED FAMILY.

128. *Pontederia cordata*, L. Pickerel-weed. Common.
129. *Heteranthera reniformis*, Ruiz. and Pav. Mud Plantain.
130. *Heteranthera limosa*, Vahl. West Virginia to Illinois and southward.

HYRIDACEÆ.

YELLOW-EYED GRASS FAMILY.

131. *Hyris flexuosa*, Muhl. Yellow-eyed Grass. Eastern Massachusetts southward near the coast; also Illinois, Wisconsin, and Michigan.
132. *Hyris Caroliniana*, Walt. Rhode Island to Virginia and southward.

CYPERACEÆ.

SEDGE FAMILY.

133. *Cyperus phymatodes*, Muhl. Vermont to Wisconsin, and common southward.
134. *Cyperus virens*, Michx. Virginia and southward.
135. *Dulichium spathaceum*, Pers. Common.
136. *Fuirena squarrosa*, Michx. Massachusetts to Virginia and southward; also Michigan.
137. *Eleocharis acicularis*, R. Br. Common. (Europe.)
138. *Eleocharis compressa*, Sullivant. Northern New York to Ohio and Illinois.
139. *Eleocharis equisetoides*, Torr. Rhode Island, Michigan, Delaware, and southward.
140. *Eleocharis intermedia*, Schultes. New York and Pennsylvania to Illinois and northward.
141. *Eleocharis melanocarpa*, Torr. Massachusetts to Virginia, and southward.
142. *Eleocharis microcarpa*, Torr. New Jersey and southward.
143. *Eleocharis obtusa*, Schultes. Most common.
144. *Eleocharis olivacea*, Torr. Massachusetts to New Jersey; also shore of Lake Ontario.
145. *Eleocharis palustris*, R. Br. Very common.
146. *Eleocharis pygmaea*, Torr.
147. *Eleocharis quadrangulata*, R. Br. New York, Michigan, and southward.
148. *Eleocharis Robbinsii*, Oakes. New Hampshire to New Jersey and southward.
149. *Eleocharis rostellata*, Torr. Rhode Island, East Massachusetts, and Vermont to New Jersey, Virginia, Michigan, and southward.
150. *Eleocharis simplex*, Torr. Eastern shore of Maryland and southward.
151. *Eleocharis tenuis*, Schultes. Common.
152. *Scirpus Canbyi*, Gray. Maryland.
153. *Scirpus cespitosus*, L. New York and Northern Illinois.

154. *Scirpus debilis*, Pursh. Massachusetts to Virginia and southward.
155. *Scirpus fluriatilis* (Club-rush), Gray. Western Vermont to Pennsylvania, Wisconsin, and Illinois.
156. *Scirpus maritimus*, L. Common on the coast and near salt springs in the interior of New York.
157. *Scirpus criophorum*, Michx. Wool-grass. Clump-head Grass.
158. *Scirpus lineatus*, Michx.
159. *Scirpus Olneyi*, Gray. Rhode Island to Delaware and southward.
160. *Scirpus atrovirens*, Muhl.
161. *Scirpus polyphyllus*, Vahl. West, New England to Illinois, and common southward.
162. *Scirpus pungens*, Vahl. Very common. (Europe.)
163. *Scirpus Smithii*. Wet shores, Lake Ontario to Illinois and Delaware Bay.
164. *Scirpus subterminalis*, Torr. New Jersey and New England to Michigan and westward.
165. *Scirpus supinus*, L. var. Hallii. Illinois and southwestward.
166. *Scirpus sylvaticus*, L. Eastern Massachusetts, New York.
167. *Scirpus Torreyi*, Olney. New England to Pennsylvania and Michigan.
168. *Scirpus validus*, Vahl. Great Bulrush. Common everywhere.
169. *Eriophorum alpinum*, L. Cotton Grass. New England to Pennsylvania, Wisconsin and northward.
170. *Eriophorum vaginatum*, L. New England to Pennsylvania, Wisconsin and northward.
171. *Eriophorum Virginicum*, L. Common.
172. *Eriophorum polystachyon*, L. Common northward.
173. *Eriophorum gracile*, Koch. New England to Illinois and northward.
174. *Rhynchospora alba*, Vahl. Beak-Rush. (Europe.)
175. *Rhynchospora macrostachya*, Torr. Massachusetts, Rhode Island, New Jersey, and southward.
176. *Rhynchospora scirpoides*, Gray. Rhode Island, Massachusetts.
177. *Carex aquatilis*, Wahl. New England to Wisconsin.
178. *Carex riparia*, Curtis. (Europe.)
179. *Carex trichocarpa*, Muhl. (Common.)

GRAMINEÆ.

GRASS FAMILY.

180. *Eragrostis reptans*, Nees. Common.
181. *Arundinaria tecta*, Muhl. Small Cane. Virginia, Illinois, and southward.

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