

PREFACE

The aim of this book is to make possible the identification of aquatic plants in sterile as well as in flowering or fruiting condition. An effort has been made to render such identification as simple as possible, but it must be remembered that the aquatics include many of the plants in groups that are most difficult for the taxonomist.

For present purposes, an aquatic is defined as a plant that may, under normal conditions, germinate and grow with at least its base in the water and is large enough to be seen with the naked eye. Under some conditions almost any plant may be found in the water. If a lake or river has been at a low level for some time and then rises to its normal level, many plants not ordinarily considered as aquatics will be found in the water. Bogs, which are often saturated, are excluded from this work, as are small woodland brooks, waterfalls, tidal, salt and brackish waters. With the field thus circumscribed, it is still very indefinite. The author is certain that no two individuals would make the same list of species; it is probable that the same individual would not make identical lists at different times. So it is frankly admitted that the present list of species is highly subjective; the goal has been to treat such plants as the aquatic biologist will be likely to find, but it is unavoidable that in many places plants will be found in the water which have been omitted.

The region covered is from Minnesota to Missouri and eastward to the Gulf of St. Lawrence and Virginia. In the last-named state many plants not heretofore known from this area are being discussed in a series of articles in *Rhodora* by Prof. M. L. Fernald. Most of these plants are omitted. The list of discoveries in this significant region is not yet complete, and anyone working in southeastern Virginia will in any event find it necessary to consult Professor Fernald's papers. Inclusion here of his findings would add to the bulk and difficulty of this book without materially aiding workers in that area.

The preparation of this book in its present form would not have been possible but for the assistance of two graduate students, Mr. John L. Blum and Miss Elizabeth A. Chavannes, who drew most of the plates, in large part without recompense. Some of the plates were drawn by Mr. Russell Stevens, Dr. Stephen Kliman, and, through cooperation with the Milwaukee Public Museum and the WPA, by Miss Emmeline O. Krause. Assistance on special problems has been given by Mr. C. C. Dean, Dr. E. C. Ogden, Prof. M. L. Fernald, Mr. Neil Hotchkiss, Dr.

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