

and thus makes it possible for a number of them to avoid migrating. For these reasons it must be considered one of our most important duck plants. This *Potamogeton*, which grows entirely submerged and in water up to 8 feet in depth furnishes an edible leaf besides the seed which ripens in October. The leaf with this plant is much more important than the seed. These various *Potamogetons* in addition to animal food form the principal diet of the deep water ducks in Northern Ontario at the present time.

#### FOOD FOR MARSH DUCKS.

As explained in above mentioned pamphlet probably more can be done to increase the number of the deep water feeders than of the marsh duck, as the area available for growth of edible deep water plants is much greater in Northern Ontario than it is for the ones on which the marsh duck feed. If anything substantial is to be done in increasing the number of ducks breeding in the North, the wild rice illusion must be destroyed. The common belief is that if only wild rice could be grown there would be plenty of ducks. Wild rice does not support the ducks *while they are breeding*. It merely attracts those that have bred and fed elsewhere to the rice beds when the seed is ripe, very often to their destruction. That it will sometimes thrive in Northern Ontario can be seen by the growth in Rice Lake north of Biscotasing, Summit Lake north of Nipigon, and Shoal Lake near Kenora. Even if it grew everywhere it would only furnish food for possibly a month or so out of the seven which the ducks spend in the north each season. Moreover, as it is only an annual and is propagated solely by seed which is extremely delicate and loses its fertility easily, efforts to transplant it will not on the whole be accompanied by much success. The writer has on a number of occasions planted wild rice, taking every precaution to have the seed in proper condition, but the results have never been worth the trouble; at the best after several years there would be a few miserable scattered tufts of wild rice showing here and there.

As something greatly superior to wild rice, because it supplies food from the spring to the fall, and has an extraordinarily rapid rate of increase and is easily transplanted and is even transported by the ducks themselves, the writer recommends plants of the *Lemna* family. Large numbers of black duck have been observed where this was almost the sole food. This plant, which is described by Mr. Thomson looks like tiny clover leaves growing on the surface of the water; at a distance it would be mistaken for a green scum. As the tiny rootlets which it sends out are only about an inch long, there is nothing to fasten it to the bottom, and hence it would be swept away if exposed to wind or current. Protected pools in marshes and drowned lands are the only practical places for this plant. Drowned lands with water-killed trees are particularly favorable. These will be formed almost always where there is a water power developed with a proper storage reservoir. Usually such lands will be a square mile or more in extent. The maintenance of constant water levels so desirable for water powers is beneficial to the duck plants. The violent fluctuations of these levels caused in lumbering operations are very destructive of aquatic plant life.

The plant illustrated is the *Lemna minor*; *Lemna polyrrhiza* is similar to this but larger and having more rootlets. These two species as they grow on the surface of the water can be transplanted by taking sphagnum moss which may be obtained from flower and seed dealers and skimming the surface of the water with pieces of moss of convenient size. The *Lemna* sticks to the moss which acts like a