

WINTER GROWTH OF A WATER LILY.

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When I uncovered my aquarium in my yard to-day (30th March, 1903), the water at one end was not frozen, the other end was covered with ice varying from thin to three inches thick at the farthest end. I was surprised to find that a Water Lily, *Nymphaea chromatella*, had two partly grown leaves, one smaller leaf and four curled up leaves ready to unfold, and two flower buds, on the surface of the water, while just underneath was a leaf curled up, not so far advanced in growth. One bud was badly decayed; the other was small and rose above the surface of the water about one and one-half inches.

With this plant are several other water lilies, also Nelumbiums, *Calla palustris*, *Cabomba*, &c. Last autumn the leaves of all these showed natural decay, except the *Nymphaea odorata rosea*, which had six or eight very large vigorous cordate leaves mottled with dull red, and a nearly mature flower bud, at the surface of the water. This spring all these large leaves and their stems had decayed and disappeared, while in their stead were the young leaves and bud before mentioned. The *C. palustris* started a shoot three inches above the water before being frozen in the surface ice, but had no growth when covered last fall. No other plant life was visible there.

The aquarium, measuring inside 14 in. x 7 in. x 2 ft., was filled with water to the brim late last fall before frost; a layer of boards was placed over it, then tar paper with overlapping edges; about a foot of wet manure was placed on this, while for a roof over all, slanting boards covered with tar paper to keep off all rain completed the shelter. When uncovered this spring, the manure was frozen to the boards and possibly had frozen solid. Where the ice was thickest the top boards were about four feet above the water.

It seems strange that the *N. odorata rosea* should grow and have natural-colored leaves in the dark, during winter, instead of the pale light yellow leaves one would naturally expect to find on plants growing away from sunlight; or that a plant should grow at all with ice on the surface of the water. No water lilies start in the Rideau River where the water is shallow and consequently warmer, till vegetation is well advanced on land everywhere.