ALTERATIONS IN AQUATIC PLANT COMMUNITY STRUCTURE FOLLOWING LIMING OF AN ACIDIC ADIRONDACK LAKE

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Source: CANADIAN JOURNAL OF FISHERIES AND AQUATIC SCIENCES, Volume 51, Pages 20-24, 1994

Abstract: The changes in the macrophyte community composition of Woods Lake, New York (Adirondack Region), following lake neutralization with calcite are described with reference to the immigration and extirpation of species. Seven new species were found after calcite addition; one of these,*Potamogeton epihydrus*, became the single most abundant species within the lake. Two species were extirpated from the lake (*Sphagnum* sp. and *Utricularia geminiscapa*) within 5 yr following the initial treatment. Overall plant coverage decreased from 47.6 to ~20% of the lake surface area. This decrease was due in large part to the decline of the previously dominant*Utricularia purpurea*. Expansion of floating-leafed species and a canopy-forming pondweed (*P.epihydrus*) signifies a shift in community structure towards that characteristic of unperturbed circumneutral lakes. Specific responses of neutralization were often not consistent with the known physiological ecology or biogeographic distribution of species.

Full article can be found at: http://dx.doi.org/10.1139/f94-004