

Disinfectant Properties of Nuphar advena: An Ethnopharmaceutical Approach

Bernu, Johanna (School: Cloquet Senior High School)

Commonly known as the yellow water lily root or kaandoosh in Ojibwe language, the rhizome of Nuphar advena is utilized by Indigenous communities for treating bacterial overgrowth. This study aims to investigate the impact of Nuphar advena rhizome on Lactobacillus isolated from yogurt and Micrococcus luteus, keeping emphasis on Ojibwe teachings around efficacy and focus on the impacts of impaired water systems on human health. Using the disc diffusion method, this study shows that Nuphar advena rhizome produces a measurable independent zone diameter when applied to Micrococcus luteus regardless of shelf time and does not impact Lactobacillus. Results further show that Nuphar advena rhizome concentrations are most effective after sitting reconstituted for one week and produce larger independent zone diameters when harvested from spring fed water sources. These results contribute to the ethnopharmacological knowledge and reappraisal of Ojibwe medicinal teachings. Data is analyzed using SPSS Software and Microsoft Excel.