

The Distribution of Aquatic Macrophytes in the Old Ausable River Channel*

Johan Wiklund¹ and Anwar Maun²

Department of Plant Sciences

University of Western Ontario, London Ontario N6A 5B7

The Old Ausable River Channel (OARC) is a 14 km stretch of water running from Grand Bend through Pinery Provincial Park to the Ausable River Cut. The water level of the OARC is maintained primarily by ground water influxes from the dunes to either side of it. In this study we: (1) examined the physical and chemical parameters of the river such as: water temperature, pH, redox potential, conductivity, turbidity, dissolved oxygen, water depth, evidence of flow, rainfall events and evidence of springs; and; (2) determined the percent coverage of aquatic vegetation at seven locations along the 14 km length of the channel. The data show that the water in the channel is shallow, has low turbidity, and runs very slowly. This creates ideal conditions for the growth of aquatic macrophytes thus lowering the aesthetic and recreational value of the river. The river channel is heavily dominated by Chara vulgaris on the north side of the canoe dam in Pinery. On the south side C. vulgaris is still present in areas of low turbidity but as the water becomes more turbid it is replaced by Myriophyllum verticillatum and then Anacharis canadensis. Yearly cycles of growth, decay of vegetation, and aeolian transport of sand are contributing to enrich and fill the channel. In this manner a self accelerating process of eutrophication and filling of the system is underway.

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