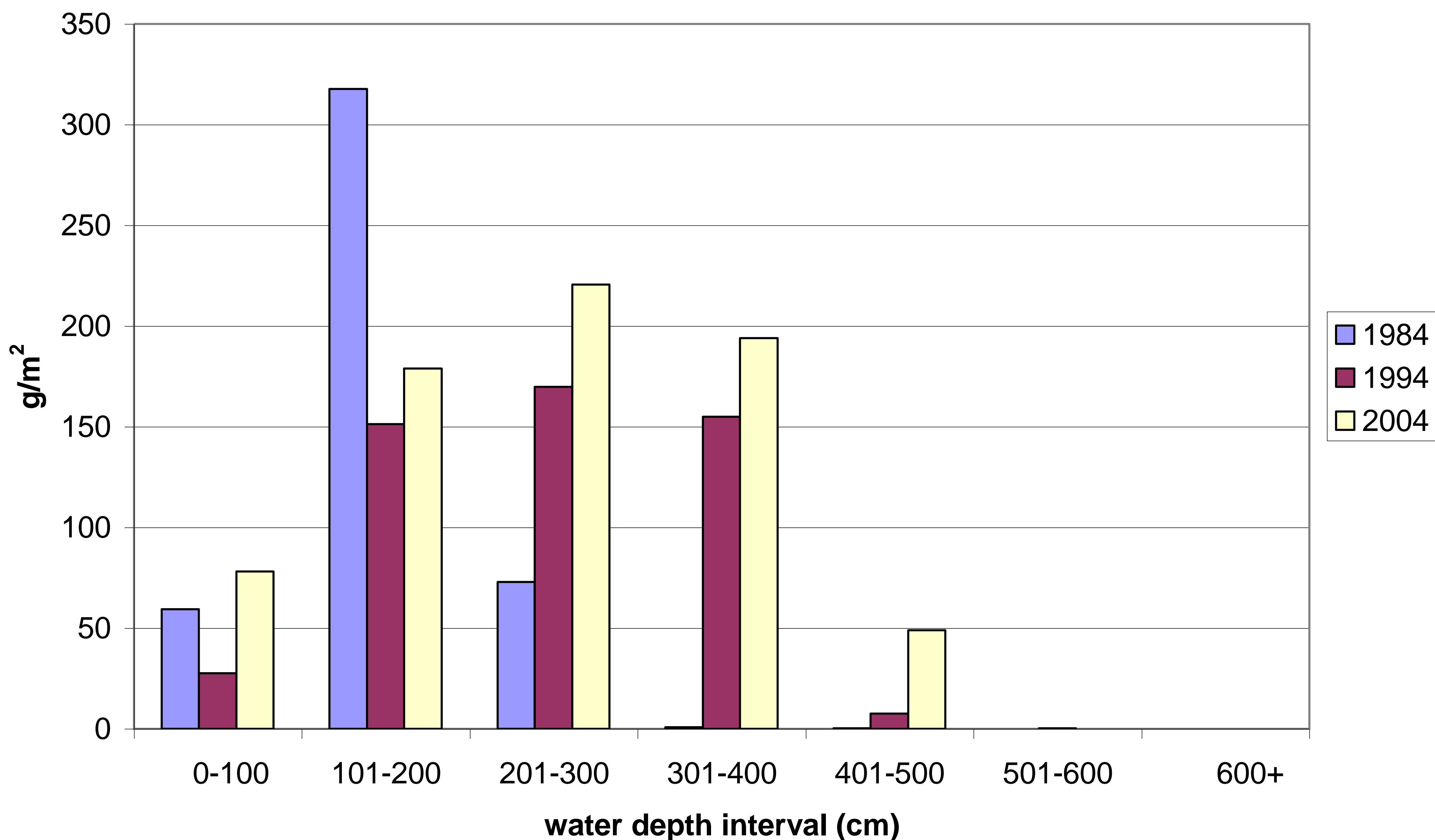


Macrophyte Biomass Distribution by Depth Zones



This chart clearly demonstrates the long-term changes in the depth distribution of large aquatic plants (macrophytes) that grow along the lake bottom. As a response to improving water clarity, plants have colonized deeper regions of the lake. Anyone fishing Honeoye Lake is well aware of the deepening position of the “weedbed line”.

Why has water clarity improved in Honeoye Lake and, in fact, in many lakes throughout the northeastern United States? This data and other research studies suggest that the 1970’s ban on phosphate detergents, the reduction of external sources of nutrients through watershed activities like perimeter sewerage, and the introduction of zebra mussels, have collectively reduced algal abundance. Fewer algae suspended in the water column results in improved clarity and deeper penetration of sunlight adequate to support the growth of aquatic plants.

One impact of macrophyte harvesting is seen in the 101-200 cm zone (3-6 feet) where most of their management activity occurs. Over the twenty years of study, the aquatic plant biomass in this zone has decreased by 43.7%! Where did the biomass go? It was cut and removed from the watershed, and the nutrients contained within the biomass were permanently prevented from ever re-fertilizing the lake.

Data source: extensive studies conducted by Dr. Bruce Gilman, Finger Lakes Community College, Canandaigua, New York 14424.