

PATTERNS OF EPIPELIC ALGAL DISTRIBUTION IN AN ACIDIC ADIRONDACK LAKE

Authors: DEBORAH A. ROBERTS AND CHARLES W. BOYLEN

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Abstract: The biovolume and species composition of epipelagic algae along sediment depth gradients were sampled seasonally in an acidic oligotrophic lake in the Adirondack Park in New York State. The epipelagic algal community of Woods Lake (Herkimer Co., NY) was dominated by diatoms and cyanobacteria. Distinct depth zonation patterns of community composition were evident. Total algal biovolume increased with depth due to a dense cyanobacterial mat on the sediments in deeper water (5–8 m). This mat was dominated by a single species of cyanobacteria, *Hapalosiphon pumilus* (Kütz.) Kirchner, which accounted for the late summer maximum in total biovolume at 7 m. The shallower (1–4 m) epipelagic communities were dominated by diatoms, which showed a spring maximum in total biovolume and were dominated by *Fragilaria acidobiontica* Charles, *Navicula tenuicephala* Hust. and *N. subtilissima* Cl.

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