Larson, Douglas W. 2000. "Waldo Lake, Oregon: Eutrophication of a Rare, Ultraologotrophic, High Mountain Lake." *Lake and Reservoir Management.* 16 (1-2): 2-15. (Reviewed by Jessica Bliss)

This article gives an excellent history of the management and limnological studies performed at Waldo Lake between the years 1938 and 2000. The bulk of the report concerns research conducted in recent decades, regarding the notable eutrophication of the historically pristine lake. Additional basic information concerning the lake's biology, including watershed area, annual temperature, rainfall, and evaporation is included. The chronology of "limnological milestones" is particularly helpful, as it compiles the recent events at Waldo Lake into a comprehensive list.

The article contains an interesting discussion about the possible causes for Waldo Lake's current trend toward eutrophication. While increased human use of the area has certainly taken a toll on the nature of the area, it is suspected that the direct cause of the eutrophication involves lasting effects from intensive fish stocking that occurred between 1941 and 1967. No research has been done concerning human effects —neither from onsite sewage to recreational use—but the long-term effects of fish stocking on similar oligotrophic lakes has been documented.

Increased algal levels and higher concentrations of planktonic species, like those currently in Waldo Lake, were common in the formerly oligotrophic, fish-stocked lakes of Lake Tahoe (CA) and Flathead Lake (MT). Whether or not fish stocking will resume at Waldo Lake is still undetermined; the independent limnological studies that reveal its impacts will have to continue for conclusive results to surface.

Critique

I didn't expect to find this article engaging; I was pleasantly surprised. Larson wastes no words, providing for a concise and informative piece. I appreciated his inclusion of a sequential play-by-play, which helps to tie the various events regarding fish management, tunnel construction, and human use. Although the article is entirely readable, I suspect that the biological discussion of eutrophication measurement would be difficult for someone unfamiliar with the process. Also, I am still not entirely clear on the discernable difference between phytoplankton and zooplankton (is it just size?), and would've benefited from more background information on this topic. I certainly consider this a reliable resource, since Larson himself appears to be the all-knowing expert on Waldo Lake's historical and current status.

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