

## **Applied Limnology: A potpourri of experiences from four decades of private practice.**

Bob Kortmann, Ph.D., Ecosystem Consulting Service, Inc.

*“Kopieren und Kopieren.” Nature is our foremost teacher; the task of technology is not to correct Nature, but to imitate it.” Victor Schaubberger (1885-1958)*

Taking the principals of limnology and applying them to solve water resource issues is Applied Limnology. Applied limnology considers the entire system of interacting components (lake, watershed, atmosphere, sediments, biological communities, resource utilization, infrastructure, etc.); an ecosystem approach. This presentation will examine several long-term lake and reservoir management projects, and present an overview of several publications (recommended reading-pdf available):

1. Kortmann, R.W. and P.H. Rich, 1994. Lake Ecosystem Energetics: The missing management link. *Lake and Reservoir Management Journal*, 8(2):77-97.
2. Kortmann, R.W. 2015. Cyanobacteria in Reservoirs: Causes, Consequences, Controls. *New England Water Works Journal* (June 2015).

\_\_\_\_\_ Perhaps some tidbits from several other publications: \_\_\_\_\_

Kortmann, R.W., G.W. Knoecklein, C.H. Bonnell, 1994. Aeration of Stratified Lakes: Theory and Practice. *Lake and Reservoir Management Journal*, 8(2):99-120.

Kortmann, R.W., 2016. Cyanobacteria in Northeastern Reservoirs: Is a “Toledo Episode” Likely Here? *Proceedings AWWA-WQTC Indianapolis*.

Kortmann, R.W. and E. Cummins. 2018. Climate Change in the Northeast: What Might It Mean to Water Quality Management? *NEWWA Journal June 2018*.

Kortmann, R.W. and E. Cummins. 2019. Gypsy Moth Caterpillar Defoliation: Is Detritus Productive? *NEWWA Journal June 2019*.

Kortmann, R.W. A description of the Utility of RTRM in applied limnology.

Living Water: Viktor Schaubberger and the Secrets of Natural Energy