

Environmental Determinants of Lake Trophic Status in the Conterminus United States

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Abstract

Keywords: National Lakes Assessment, Cyanobacteria, Chlorophyll a

Introduction

What are the primary determinants of lake trophic status? Determinants include, chemical and physical parameters of the lake water column and land use/land cover. Lake trophic status defined by Chl a.

Methods

Data

The two primary sources of data for this study are the National Lakes Assessment data and the National Land Cover Dataset [usepa2009national;@]

Predictor Variables

Water Column

Landscape

We defined the surrounding landscape of a lake with four different buffer distances: maximum in-lake distance [hollister_predicting_2011], 300 meters, 1500 meters, and 2500 meters. The various distances were used to tease out differences in local landscape effects versus larger landscape-level effects. For each of these distances, we used the National Land Cover Dataset (NLCD) and calculated the percent impervious and total area of each landcover class.

²⁵ **Results and Discussion**

²⁶ **Acknowledgements**

²⁷ **References**