

Controlling filamentous cyanobacterial blooms requires adaptive, weather-informed strategy

Highlights

Jiao Fang^{a,b}

Ming Su^{a,e,*}

Yande Li^c

Yuying Gui^{a,d}

Yufan Ai^{a,e}

Ogalo Joseph^{a,e}

Tengxin Cao^{a,c}

Shilong He^b

Min Yang^{a,e,*}

^a Key Laboratory of Environmental Aquatic Chemistry, State Key Laboratory of Regional Environment and Sustainability, Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, Beijing 100085, China.

^b School of Environment and Spatial Informatics, China University of Mining and Technology, Xuzhou 221116, China.

^c Management Station of Shuangxikou Reservoir, Reservoir Management Service Center of Yuyao, Ningbo 315423, China.

^d College of Environmental Science and Engineering, Ocean University of China, Qingdao 266100, China.

^e University of Chinese Academy of Sciences, Beijing 100049, China.

* Corresponding to: [Ming Su \(mingsu@rcees.ac.cn\)](mailto:mingsu@rcees.ac.cn), [Min Yang \(yangmin@rcees.ac.cn\)](mailto:yangmin@rcees.ac.cn)

- Filamentous cyanobacteria dominate 50% of surveyed reservoirs in eastern China
- Machine learning forecasts enable timing and intensity optimization of resuspension
- Sediment flux modulates underwater light intensity to suppress filamentous taxa