

มีการอ้างอิงบทความวิจัย “Artificial Neural Network Model to Prediction of Eutrophication and Microcystis Aeruginosa Bloom” ตั้งแต่ 1 เมษายน 2568 – 30 กันยายน 2568 จำนวน 1 บทความ

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REVIEW ARTICLE

Artificial Neural Networks for Modeling Harmful Algal Blooms: A Review

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First published: 29 July 2025 | <https://doi.org/10.1111/maec.70037>

Funding: The authors received no specific funding for this work.

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ABSTRACT

Harmful algal blooms (HABs) are a growing environmental concern that require better understanding, prediction, and study. Even though photosynthesizing algae produce 70% of atmospheric oxygen, their unexpected outbreaks can harm the environment. A delicate interplay of various environmental factors drives the intricate dynamics of algal blooms. Artificial neural network (ANN) models provide profound insights into the nonlinear and unpredictable behavior of algal blooms. Neural networks can also improve prediction accuracy, pattern recognition, species identification, and correlation analysis. The ANN's ability to comprehend and process diverse datasets, along with its adaptability, makes it suitable for real-time monitoring systems, allowing for early warnings and proactive mitigation in HAB management. This review paper summarizes recent findings and demonstrates how ANNs contribute to HAB research. Based on this review, we discuss the challenges of using ANNs in this context and offer

Volume 46, Issue 4
July/August 2025
e70037

References Related Information

Recommended

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- [Causes of Harmful Algal Blooms](#)
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