Tahoe research provides insights on global change

By Science Daily

Scripps Institution of Oceanography-led study on how natural and human-made sources of nitrogen are recycled through the Lake Tahoe ecosystem provides new information on how global change may affect the iconic blue lake.

"High-elevation lakes, such as Lake Tahoe, are sentinels of climate change," said Lihini Aluwihare, associate professor of geosciences at Scripps Institution of Oceanography at UC San Diego. "Small changes in the lake's chemistry can have big impacts on the entire ecosystem."

Lake Tahoe's nitrogen concentration is one of several factors that helps maintain its crystal clear waters. To keep Tahoe blue in the future, the researchers say it's important to keep a close eye on the nitrogen balance in the ecosystem over time.

The study, published in the Feb. 23 issue of the journal Nature Communications, tracked nitrogen, including that produced from the burning of fossil fuels, in the Lake Tahoe ecosystem. Nitrogen can affect both the productivity of lake food webs and the composition of the microbes that support nutrition for those food webs.

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