

Lake Tahoe mobile app lets visitors be citizen scientists

The UC Davis Tahoe Environmental Research Center (TERC) has launched a new smartphone app, “Citizen Science Tahoe,” that encourages beach-goers of all ages to tap in what they see at Lake Tahoe—observational data that will be shared with the scientists to better understand conditions around the lake.

The app, available for download at www.CitizenScienceTahoe.org, was programmed by Shahzeb Khan, a UC Davis freshman studying computer science who won a UC Davis-wide competition for the best app proposal.

“Working on the app and solving problems has been a fun challenge,” said Khan. “Collaborating with TERC has also been a great work experience.”

Just ‘go to the beach’

Citizen scientists can help lake researchers by taking a few minutes to enter what they see at the beach, from algae to wildlife. Each observation automatically records the user’s location and the date and time. Users can also add photos and their own comments, and they earn points for every observation made.

Science needs both sides of the story, so users are encouraged to report on what is good at the beach as well as anything that indicates problems, such as algae, shells, or litter.

This perceptual data will help lake researchers better understand Lake Tahoe’s fragile nearshore, the region of the lake we experience the most, but, surprisingly, know the least about. Scientists will compare this data with data from a growing network of real-time sensors to gain a larger view of what’s going on in the nearshore. As the number of “crowd-sourced” observations increases, new information and trends will be discovered.

“There are aspects of water and ecological quality that depend solely on the perceptions of individuals,” said Geoff Schladow, director of the UC Davis Tahoe Environmental Research Center. “That is what this app is seeking to measure from everywhere around the lake at all times of year. If you want to contribute to science at Lake Tahoe, simply go to the beach”.

Data from the app and the sensors will be available through a science center exhibit currently under development. The future “Lake Tahoe Conditions” exhibit, developed by UC Davis TERC and funded by the Institute for Museum and Library Services and North Lake Tahoe Resort Association/Placer County, will explore trends related to lake level, temperature, water color, water clarity, algae, and more.

Viewing the real-time data from around the shore of Lake Tahoe, visitors will be able to explore how conditions are changing over time and at different locations around the lake.

Media contacts:

- Geoffrey Schladow, UC Davis Tahoe Environmental Research Center, (530) 902-2272, gschladow@ucdavis.edu
- Kat Kerlin, UC Davis News and Media Relations, (530) 752-7704, kekerlin@ucdavis.edu