Abstract

"Citizen science" generally refers to observational research and data collection conducted by non-professionals, commonly as volunteers. In environmental science fields, citizen scientists may be involved with both local and regional issues, such as land use, development, and pollution. They may also be engaged in larger-scale, international projects that are motivated by the intellectual challenge of citizen science. In this context, citizen scientists may examine their local environment, and contribute to the development of knowledge about local environmental issues.

The CARSON Guide Workshop

On August 12-13, 2009, a workshop was held at NASA Goddard Space Flight Center to lay the foundation for a program in amateur satellite-based Earth observation, titled "The Citizens And Remote Sensing Observational Network (CARSON) Guide." This workshop was held to provide an opportunity for people to observe their local environment and connect to a global community of citizen scientists.

AIR QUALITY

AIR QUALITY ACTIVITY

The air quality team developed an application that allows citizens to select a normal value, and photograph it at the same time. (This application was developed by the Citizen Science team, and is available through Google Earth.) The citizen scientist will note weather conditions, such as wind direction, and the Environmental Protection Agency (EPA) air quality index (AQI) for the area. Over time, this data can be used to improve the air quality index for the region.

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WATER QUALITY

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Sediment data is used to measure depth, and data quality. Prepared sampling sites can be used to measure dissolved oxygen concentrations. Sediment data is used to measure depth, and data quality. Prepared sampling sites can be used to measure dissolved oxygen concentrations.

PRESPICTION ACTIVITY

The precipitation team encourages citizen scientists to join an existing rain gauge network (such as the Community Collaborative Rain, Hail, & Snow (CoCoRaHS) network) and collect rainfall measurements near their home. Citizen scientists can measure their local climate and contribute to the regional variability, and use the data to analyze local weather patterns.

REFERENCES


