'Mountain Rain or Snow' project seeks citizen scientists and winter storm reports

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Mountain Rain or Snow engages citizen scientist volunteers to submit observations of rain, snow, or mixed precipitation via smartphones and other devices. Credit: Lynker

During the winter, a few degrees can make all the difference between digging your car out of a snowbank and rushing rivers overtopping their banks. Why? Winter storms at near-freezing temperatures have notoriously fickle precipitation, with mixes of rain and snow. While the air temperature difference between the two may be slight, the real-world consequences can be huge.

What's more, the computer models we use to predict weather and streamflow often struggle to predict whether rain or snow will fall when temperatures are right around 32°F. Satellites don't do much better. What this means is that scientists need your help.

With NASA funding, a team from Lynker, the Desert Research Institute, and the University of Nevada, Reno is launching a citizen science project where volunteers like you can submit observations of rain, snow, and mixed precipitation via your smartphone, laptop, desktop, tablet, or any other device with a browser. It's called Mountain Rain or Snow, and you can report from your backcountry adventures, winter drives (as long as you're the passenger), and even the comfort of your own home. Every observation is valuable.

As we grow the community of Mountain Rain or Snow volunteers, we will be better able to analyze patterns of rain and snow to improve satellite monitoring and model predictions. This info can then bring about better weather forecasts, more detailed knowledge of skiing conditions, improved avalanche risk assessments, and more robust understanding of the water stored in mountain snowpacks.

This winter we're focusing our efforts on the following mountain regions. If you're in one of these areas, text the region-specific keyword to the number provided. You'll then get a link to the Mountain Rain or Snow web app and you'll receive notifications of incoming winter storms in your area. You can opt out at any time.
• The Appalachians and Adirondacks of New England and New York: Text NorEaster to 855-909-0798
• The Cascades, Coast Range, and Klamath Mountains of Oregon: Text OregonRainOrSnow to 855-909-0798
• The Sierra Nevada of California and Nevada: Text WINTER to 855-909-0798
• The Rocky Mountains of Colorado: Text CORainSnow to 855-909-0798

If you don't happen to find yourself in one of the above areas, we welcome observations from wherever you are. Anyone can submit an observation at any time via rainorsnow.app/.

More information: Learn more about NASA's Citizen Science Program:
science.nasa.gov/citizenscience

Provided by Desert Research Institute

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