Abstract #42724

Researcher-driven campaigns engage *Nature’s Notebook* participants in scientific data collection

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Background/Question/Methods

One of the many benefits of citizen science projects is the capacity they hold for facilitating data collection on a grand scale and thereby enabling scientists to answer questions they would otherwise not been able to address. *Nature’s Notebook*, the plant and animal phenology observing program of the USA National Phenology Network (USA-NPN) suitable for scientists and non-scientists alike, offers scientifically-vetted data collection protocols and infrastructure and mechanisms to quickly reach out to hundreds to thousands of potential contributors.

The USA-NPN has recently partnered with several research teams to engage participants in contributing to specific studies. In one example, a team of scientists from NASA, the New Mexico Department of Health, and universities in Arizona, New Mexico, Oklahoma, and California are using juniper phenology observations submitted by *Nature’s Notebook* participants to improve predictions of pollen release and inform asthma and allergy alerts. In a second effort, researchers from the University of Maryland Center for Environmental Science are engaging *Nature’s Notebook* participants in tracking leafing phenophases of poplars across the U.S. These observations will be compared to information acquired via satellite imagery and used to determine geographic areas where the tree species are most and least adapted to predicted climate change.

Results/Conclusions

Researchers in these partnerships receive benefits primarily in the form of ground observations. Launched in 2010, the juniper pollen effort has engaged participants in several western states and has yielded thousands of observations that can play a role in model ground validation. Periodic evaluation of these observations has prompted the team to improve and enhance the materials that participants receive, in an effort to boost data quality. The poplar project is formally launching in spring of 2013 and will run for three years; preliminary findings from 2013 will be presented. Participants in these special campaigns benefit through direct engagement in science.
This form of researcher partnership has now been successfully pilot-tested and implemented in several instances, and provides a template for future research project campaigns.

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1. Ecological applications, tools, and techniques - education: tools & technology  
2. Ecological applications, tools, and techniques - education: community-based learning  
3. Ecological applications, tools, and techniques - citizen science

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