

Citizen and Community Science at ANR:

Preliminary insights from a forward-looking assessment

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Assessment Goals

- **Assess the status of CCS at ANR.**
- **Highlight science opportunities.**
- **Highlight engagement opportunities.**
- **Provide roadmap for increasing ANR capacity for CCS.**



Please take our survey!

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Phone-friendly – takes only 3 minutes!



Citizen and Community Science at ANR

Diverse in many ways

- Youth to retirees, socio-economically diverse
- General public to specialized groups/knowledges/skills
- Tight-knit communities to distributed online networks.
- High-tech and low-tech
- Single event, to ongoing
- Many different uses of the data.
 - Early warning, inform decision-making, improve practices, improve modeling, etc.



Citizen and Community Science at ANR

Many different roles for ANR personnel, programs

- Novel projects and platforms
- Becoming a hub for larger, ongoing projects
- Catalyzing and supporting CCS led by others
 - Developing standards, structures, training, etc.
- Creating networks that facilitate citizen science

Missing so far:

- High-intensity training; online crowdsourcing of data processing



Sampling of ANR CCS projects

- Fishes of the LA River
- Coyote Cacher
- Invasive Shot Hole Borer (MGs)
- Water Quality (MGs, other)
- California Naturalist (various)
- Soil and wildfires
- Bird Diversity (4H)
- On-farm demonstration network
- Wolves and livestock
- YPAR -- Biosecurity monitoring with (4H)
- YPAR – nutrition in schools
- YPAR – (4H)
- Rural broadband



Strengths

- Relationships that cross social boundaries.
- Networks – formal and informal
 - (4H, CalNat, Master Gardeners, On-Farm Demonstration Network...)
- ANR research often locally-focused, driven by problems of concern to communities, stakeholders, clientele.
- Wide range of technical sophistication in ANR work – many kinds of roles to play, and knowledges to contribute.



Challenges and Needs -- Practical

- Meeting demand: initiating and scaling up requires time and resources, new skillsets
- Sustaining interest, training, supporting and managing volunteers
- Reaching and empowering new communities – especially non-dominant communities.
- Understanding impact on multiple dimensions (knowledge, decision-making, science literacy, environmental/economic outcomes)



Challenges and Needs – Institutional/Cultural

- Resources to support CCS at ANR (training, guidance, technology)
- Perceived practical divide between research and extension
- Legitimacy and credibility
- Blurry lines between advising and collaborating, between being a research subject and a citizen scientist.

Looking ahead...

- What kinds of formal recognition could support and expand the reach of ANR citizen and community science?
- What kinds of training, professional development, and capacity could support ANR researchers in doing this kind of work?
- Programs for tapping into networks and other infrastructure.
- Public awareness: Can volunteers find projects? Do participants know how the data are being used?
- What's the role of ANR in providing access, and supporting participation?

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