

July 23, 2020 Partners Working Group Call

Attendees: Thilina Surasinghe, Mike SanClements, Kira Sullivan-Wiley, Mike Dietze, Melissa Kenney, Jody Peters

Agenda and Notes

1. RCN NEON Forecasting Challenge Updates
 - a. Now that the groups have met and leads are defined are there practical steps we can take to make concrete connections to the groups?
 - b. Forecasting Challenge Topics and Leads
 - i. Community - beetle diversity; Lead: Anna Spiers (CU Grad student)
 - ii. Tick abundance - population modeling concept; Leads: Sadie Ryan and John Foster (BU Grad Student)
 - iii. Terrestrial fluxes and ecohydrology; Lead: Alex Young (Early career researcher)
 - iv. Phenology phenocam; Leads: Kathryn Wheeler (BU Grad Student) and Chris Jones. Partners Liaison: Kathy Gerst/NPN
 1. Focusing on site scale using temp/deciduous site. Phenocam based. Only real-time forecasts. Asking NEON domain folks for potential partners. Kathy - lots of calls from the media about phenology forecasts. Forecasting both seasons. NPN doesn't have a fall product yet. They have spring forecast product that is really lilac based and it does not assimilate data.
 2. Point scale predictions of phenological states through time. Predicted date/uncertainty for hitting thresholds (e.g., 50% leaf off or leaf on).
 3. For NPN these are in spatial form/maps. But the Challenge would start by focusing on NEON sites and then potentially moving to the broader spatial scale
 4. Possible in years 2-4 the group would add a mosquito phenology to the competition
 5. As Challenge matures NPN wants to operationalize the output which is awesome.
 - v. Aquatics (temp and do); Leads: James Guinnip (Kansas State Grad Student); Partners Liaison: Chris Brown/NOAA
 - c. Question for Partners Group - what to do for the Topics that do not have partner connections yet. Do we want to engage and how to engage.
 - i. Tick seems like a low-hanging fruit. Dietze lab does tick forecasts and it captures people's attention
 - ii. NEON Challenge is site specific. So looking for early adopters for if/when the forecasts get scaled. Could imagine a tick forecast in a weather forecast like they have for pollen forecasts. If it is produced on daily/weekly timestep.

- iii. Department of Public Health that do tick surveys or collect data. Do they tend to be early adopters? Not sure if Tick group has thought of this. Mike's group has found it hard to work with state agencies when asking for data about ticks and there is no consortium across states. This could also represent real opportunities to get engagement and open up data.
 - iv. There are also some citizen science groups that collect tick data as well.
 - v. Finding early adopters would be really helpful
 - vi. All 47 terrestrial sites will have tick sampling. Not sure how many of those sites will be forecasted in round 1. Mike thinks they are going to focus on the black-legged tick habitat sites.
 - vii. If there is anyone from this group who would like to meet with the Tick group that would be interested.
- d. Terrestrial flux/ecohydrology Group has not gotten to brainstorming about partners yet. Mike is thinking about reaching out to social/decision side of NASA carbon monitoring group. NASA has sets of identified stakeholders. At the RCN meeting there was good participation from the NACP group so it would be good to connect with them.
 - e. Beetle Group - they are still in the initial planning stages. Could think about this as a proxy for biodiversity. But not sure there are many potential partners interested in beetle diversity.
 - f. Have the Partners group continue to check in and engage with Kathy and Chris to see if we can support them as they liaison with the Phenology and Aquatics groups
 - g. For the other groups - if they are not ready to think about engaging partners, it can easily be pushed given people limitation. But for example, if the tick group wants to engage - if they can brainstorm/frame - what are they most interested in thinking about/knowing so we know where they are in the thought process then a few people from this group could have an ideation meeting to think about partner research, how to do the matching, how to make sure to have decision relevant output. Don't always need to have a deep partner and working closely. Sometimes it can be doing a bit of homework and knowing what people's needs are, the time scale, the form of the information, and technical savviness of - are they looking for data or decision support tools.
 - h. Depending on the audiences/needs the outputs can look very different given those audiences/needs - [this article by Alison Meadow](#) describes 5 approaches to collaborative research that can be used to structure a coproduction process that each suit different types of research or management questions, decision-making contexts, and resources and skills
 - i. As with the Social Science group - Quinn/Mike/Jody to keep the Partners group in mind moving forward and where there is interest make the connections between the groups.
 - j. Would it be possible for EFI to send an email to NEON domain managers letting them know the Challenge is occurring and what is being forecasted at each site

so they can have that in their mind if they come across any local partners at those sites? If the managers have thoughts

- i. Yes! EFI can send email or send text to Mike SanClements. Every 3 weeks have a meeting with the domain managers so could bring it up at that meeting.
 - ii. Having a combination of bringing it up at the meeting and an email from Mike S. with text we provide.
 - iii. Do this more in September when protocols/ideas are nailed down and the information is up on the website.
- k. Thilina working on Beetle Challenge design. For carabids going with species richness short term forecasts per site. 1) What kind of visualization? On the Standards call we discussed working with the Social Science group to have examples that can be read into the Standards where you can make visualizations from the Standards metadata.
- i. Mike's tech has developed [an RShiny app](#) (beta system) - can pull up phenology forecast, tick forecast, and dissolved oxygen forecast
 - ii. Think about creating the default templates that communities can customize to any forecast. That way each user group won't have to start from scratch
 - iii. What about publishing the Challenges?
 1. There is a new journal call MDPI Forecasting that covers a wide range of disciplines. The journal is interested in publishing a special issue about the Challenge. Mike hasn't talked to the Steering Committee about this yet, but this could be an option.
2. Update on Kira's Survey (bit.ly/EFIpartnerssurvey)
- a. Kira talked to Marie Colton at AMS who shared it with that group and got a few additional responses.
 - b. Kira will include in her ESA talk next week
 - c. Kira will wait until after ESA to start doing analyses
3. Work Plan - we started discussing Core Function 1 and compiling data sources from partners (e.g., NOAA) that everyone needs for creating forecasts (e.g., met data). Do we want to formalize anything on here further?
- a. If we want to push this forward then push to the next call but in the meantime clear the comments and get broad agreement over email
 - b. Put this on the top of the next Agenda to focus on