

Internal science meeting June 2016 at Warnell School May 24-26, 2016

Meeting objectives:

1. Present our results from 1st level integrative papers – the “what”
2. Outline 2nd level integrative papers – the “so what”
3. Build our consensus message and targeted variations for stakeholders
4. Identify questions for future research, gaps that remain

Tuesday, May 25

8-8:30 Welcome

8:30-12 1st level integrative paper presentations (15 minutes each paper).

- Audience receives listening tasks:
Task 1: Who will want to know about this and how do we get it to them (mitigation and adaptation goal context, management/ behavior change)?
Task 2: Confirmatory/surprising element of science
- Presentations: highlight the most insightful findings from a science perspective -- key findings/value added and gaps/opportunities for further research
- Clarification questions from audience - 15 minutes after each panel group.

8:30-10 Panel Session A

1. Regional net ecosystem productivity- net primary productivity tradeoffs: the role of soil respiration. (Brown, Lin, Markewitz, Noormets, Maier, McElligott, Seiler, Strahm)
2. Regional sap flow and hydraulics synthesis: how does reduced precipitation, fertilization, water use, site. (Ward et al)
3. Forest management effects on relative changes in biomass, forest floor, and soil carbon across the region. The role of nitrogen differences in forest floor and soil carbon in nitrogen retention estimates. (Vogel et al)
4. The effects of rainfall reduction and nutrient availability on net ecosystem productivity. (Bracho, Noormets, Gonzalez, Martin, Vogel, Markewitz)

10-10:30 Break

10:30-12 Panel Session B

1. Regional loblolly pine productivity assessment under climate change using 3-PG: flavor selection, parameter tuning, data assimilation, and regional runs for 20 climate models. (Evan, Randy, [Bob, Carlos, DA - flavors, Carlos - Tier I, II data; Ryan, Heather, Corey – MACA inputs; Quinn -parameter tuning; Brian, Tom, John Seiler - SI Map corrections; Jose Alvarez; Data assimilation Jersild, Quinn, Carlos, Bob, DAS, Brooks, Bruce])
2. Community land model: which details matter when representing forest management in an earth system model? Aboveground net primary productivity and stem: leaf allocation (based on Tier I data). (Quinn, Ben)
3. Loblolly pine Growth & Yield regional simulations. (Harold, Evan, Heather/Ryan/Corey, Charles, Nabin, Randy)
4. Carbon-water tradeoffs of southern forests (WaSSI model). (Ge, Steve, Carlos, Heather, Eric Ward (CO₂ fertilization), JC (CO₂/W), Bruce/Bob T. (Tier III Sites).

12-1:30 Lunch and poster session

1:30-2:30 Communication/messaging Moderated plenary discussion of listening task responses:

- potential barriers to and opportunities for communicating to audiences: NIFA, Coops, Extension. Potentials for misunderstanding and tailoring to audience: who will be most interested in which findings
- science interpretation: consensus building/ controversies and grey areas, strategies for coherent messaging

2:30-3 Break

3-5 Contribution to whole

- Tim will open discussion with spreadsheet developed for NIFA (management oriented) according to 3 main goals of project and outcome themes.
- Each presentation team from earlier shares how/ where they contribute, then invite others to discuss their contribution. This should allow every member to be recognized for their contributions, build consensus, and provide seeding for 2nd integrative papers discussion
 - What resources (datasets/ capacity) are available to the community due to your PINEMAP research?

- What was value added (link to Day 2 pm for final results and future research)?
- How could future research be enhanced by PINEMAP capacity/networks? (more discussion on this next PM)
- What has time/money/energy bought us? (consensus message building)

5-5:30 Straw list of 2nd order papers and discussion template:

- Folks can prioritize for next morning's session,
- think of ideas that are missing from discussion template or papers that are missing from list,
- set structure/ group forming process.
 - What do you want to talk about: what are non-logistical topics that excite you and you're interested in discussing with your group – what is value added beyond 1st level integrative papers?
 - What's most important thing to share

6-9:30 Dinner at Flinchum's Phoenix

Wednesday, May 25

8:30-9 Brainstorming session to ID additional 2nd level integrative papers and orientation to process– current list:

1. Ensemble modeling of pine productivity over the 21st century. (by Q. Thomas/R. Wynne/E. Brooks, authors on all individual model papers, Sabine, Wade Ross)
2. Life cycle impacts of certified wood under a changing climate. (by Puneet, Bob T., Dan M., Mark M., James McC., Gary P., Bob A.)
3. The future of southern timber markets: PINEMAP and the sub-regional timber supply model. (by Bob A., Jesse H.)
4. Soil C longer description (Sabine, Wade Ross, ?)
5. Water: Carbon tradeoffs in planted pine (sap flow, WaSSI, regional C models) (author list here)
6. Management effects on ecosystem C (soil respiration, Tier I, II, III analyses) (author list here)
7. Management path to get to our 15%- what has to change on how much acreage (author list here)
8. Process paper: interdisciplinarity, research/outreach interaction, social network analysis (author list here)
9. PINEMAP's outreach evaluation: translating results for foresters and Extension. (by Eric Taylor, Leslie Boby (co-leaders); Heather D., Corey D., Mark M., Bill H., Dan G., Rachel B.)

9-12 (Break 10:30-11) Working sessions for Outlining 2nd level Integrative papers

World Café: 1.5 hours 1st session, 1 hour second session.

Template to guide discussion (beyond logistics of authorship, research ?s, data needs, timeline): will this be in one or more than one paper, will this be a final report synthesis piece?

Share with group after lunch:

- Significant aspect you can/ will be able to illuminate
- How you think we might message your results
- Which audience would be most interested – packaging, medium

Listening task for Eric Norland: What would NIFA be most interested in/ what examples could we feed back to Ramaswamy?

12-1 Lunch and Group Photo

1-3 Report out from 2nd level paper groups

Share with group after lunch (see above):

- Significant aspect you can/ will be able to illuminate
- How you think we might message your results

3-3:30 Break

3:30-5:00 PINEMAP's legacy for us

Data privacy and authorship concerns: "It is estimated that these data will be fully available January 2018, conditional on completion of PINEMAP related analysis and publications by that date."

- Look at past policy and discuss timing of data release,
- creative commons licensing,
- ownership and format for continued citation,
- Tier I data negotiations,
- Tier II data georeferencing to ownership privacy concern?
- Tracking of data downloads, attribution tags for data

DSS: Updating of existing tools, additional tool development

5:00-5:30 Social network analysis update (Wendy-Lin)

Dinner on own, possible grad student social?

Day 3: May 26

9-12 Opportunities for the Future

- How do we package these results for final report
 - New opportunities through this network/ resources that we have created? what are new questions (perhaps unplanned) that we can now answer with the resources/ capacity we created?
 - How do we help to frame the next NIFA RFA? Eric Norland reports back on NIFA perspective.
 - Continue discussions of controversy or contradictory results
 - Joint coop meeting rollout and future cooperation/ collaboration (including logistics of meeting and data sharing concerns)
-

Other concerns:

- How to make sure grad students and all aims are engaged?
- Reflections on interdisciplinarity?
- **How to best incorporate:**
 - a. Enhancing climate education: how to create quality education and engage students and educators in effectively using the research framework to teach about climate and forests. (by Kidd, Li, Kunkle, Ritchie, Monroe, Oxarart, Boyles, Seiler) – **kind of already done?**
 - b. Overview of PINEMAP research on management strategies: what changes foresters will make in the face of environmental pressures. (by Eric Taylor, Leslie Boby (co-leaders); Heather D., Corey D., Mark M., Bill H., Dan G., Rachel B.) – **not sure of how to best incorporate**