Nutrient Network Workshop V
31 July – 3 Aug 2013
Business Meeting Report

The Nutrient Network business meeting for 2013 was conducted Friday, August 2nd 2013 at the Institute on the Environment at the University of Minnesota. The discussion was led by Elizabeth Borer and Eric Lind and minutes recorded by Charlotte Riggs and Peter Wragg (both U of M).

Present: Elizabeth Borer, Maria Silveira, Lori Biederman, Cini Brown, Mahesh Sankaran, John Orrock, Yann Hautier, Andrew MacDougall, Suzanne Prober, Chengjin Chu, Charlotte Riggs, Kevin Kirkman, Laura Ladwig, Eric Lind, Pedro Daleo, Juan Alberti, Scott Collins, Lauren Sullivan, Jon Bakker, Selene Baez, Maria Caldeira, Xiaotao Lu, Ryan Williams, Sarah Hobbie

Agenda Items:
- NutNet self-survey results
- updated authorship process document
- NutNet 2.0 treatment possibilities

Discussion:
Elizabeth Borer presented the **results of the online NutNet self-survey.** The ~50 responses to the survey tell us that we're a pretty diverse group and people are, overall, quite happy with the science, management, and products of NutNet. If you have not already done so, please fill out the survey – and have undergraduates, graduate students, and technicians do so. There is interest in analyzing these data for a publication – please be sure we have meaningful, representative data. The short, five minute survey can be found at http://tinyurl.com/mevb8gq.

EB also urged all site PIs to please **fill out the local site broader impacts report.** Please be sure to report any activities at your site, including undergraduate and graduate student involvement, tours or outreach for the public, press releases, papers, posters, or talks using data from NutNet plots, etc. These data are invaluable for demonstrating the benefits to the public beyond our great science, and are essential for continued funding of the Network. The local site broader impacts form can be filled out online here: http://www.nutnet.org/broader_impacts.

Andrew MacDougall (authorship committee representative) presented a revised **authorship process** document for review by the Network. The document is online here: http://www.nutnet.org/files/nutnet/NutNet-PubProcess.pdf. We have developed this more detailed document about authorship because of questions and confusion that has come up with each paper, and because of new paper types that are emerging. We want to balance inclusion and prevent conflicts. NutNet is unique because instead of expanding from a head PI, we fund each data point from a different source which can lead to confusion about contributions and authorship. Some specific issues were discussed:

1. **Who should opt in?** We re-emphasize that authorship is earned through substantial contribution to two categories of the updated rubric. Contribution categories are: developed

question, analyzed data, contributed to data analyses, wrote, contributed to writing, site coordinator, network coordinator. In practice for most authors this will be usually data contribution + something else. Be sure to be involved in editing any paper on which you are an author!

      i.   Each person who has led a NutNet paper so far has found benefits to having others opt-in: the team of great opt-in "editors" boosts paper quality and rigor

      ii.   This process is sensitive to each of us choosing carefully which papers to opt in on and contributing meaningfully so the meaning of authorship is not diluted

      iii.   If you choose to opt in, know that the lead author has to make a call on how to reconcile all the comments. Also with many co-authors, papers can get bogged down waiting for comments; if you opt in, please prioritize quick turn-around

      iv.   There was discussion about graduate students and the number of authors on papers – leading a network paper differs from a CV in which you are always in the middle of a long author line. *Regularly opting in but never leading a paper will not greatly benefit you as a scientist.* However, all NutNet papers require a contributions table, so committees etc. should be able to assess your intellectual contributions. For graduate students involved in NutNet, it may be important to do single-author (or few author) papers along with NutNet papers. Because there is skepticism of long author lists in our field, we should be careful to hold ourselves to the same authorship contribution standards as we do for single-lab papers.

2. **If you lead a paper …**

      i.   be careful not to undermine other NutNet efforts—search the NutNet abstract database, to be sure you are coordinating with any and all authors with similar questions or datasets. The abstracts can be viewed and searched here: http://www.nutnet.org/ms_search.

      ii.   present opportunities to opt-in *early on.* Presenting fully complete manuscripts to the network for opt-in does make authorship less meaningful.

      iii.   be sure to reference previous NutNet work, not so much for self-citation but because different data analyses can produce different results. If a second paper comes to a different conclusion than a previous NutNet effort on a similar topic, we must be sure to explain the differences.

      iv.   avoid using regional studies to answer a network-wide question. Regional and sub-network papers must be unique contributions (and be in the abstract database).

      v.   follow the paper submission checklist

      vi.   … this can all be summed up as: communicate and play well with others.

3. **NutNet as a platform for other types of studies**. Both members of NutNet and outside collaborators are now using the experimental framework of NutNet and the distribution of sites to ask some interesting questions.

      i.   If these extra data are gathered from NutNet sites but do not include the core NutNet dataset (cover, biomass, light, soil), there is no requirement to offer opt-in authorship to PIs at those sites.

      ii.   If core data are used in an ancillary or non-NutNet analysis, opt-in authorship should be offered to those sites from which the data were drawn.

      iii.   A "Nutrient Network" author may be appropriate for some studies, with the individual sites and contributors listed in the acknowledgments.

A suggestion was made for a **NutNet author directory –** this topic came up because of recent experience by authors submitting to e.g. Science and Nature. We need a database of NutNet scientists including all contact information. This could also be used to list skills so authors can identify e.g. statistical powerhouses in the network. E Lind will initiate the directory and solicit information.

As part of a side discussion about leveraging statistical expertise within NutNet, Brett Melbourne suggested a **code archiving/data posting protocol.** This is especially important because of the constantly changing nature of the database. When papers are published, we propose to create a zip file for archiving that includes: (1) .pdf of paper and any appendices, (2) annotated R code (or other) used to create all analyses and figures, and (3) a .csv file of the dataset used for the paper's analyses. This will also serve as a way to share code among NutNetters. Brett Melbourne drafted a new document describing this process and examples should be online at nutnet.org soon.

Elizabeth led a session of **brainstorming for "future" 10-year plot treatment.** Responses had been included on the NutNet self-survey (http://tinyurl.com/mevb8gq) and suggestions were diverse. To date, suggestions include:

- clear aboveground vegetation
- cease nutrient addition
- C addition
- soil disturbance
- liming / acidification
- increase herbivory / mowing / defoliation
- goat grazing
- insect/fungicide

- invasive species removal treatment
- selective removal of dominant species
- warming
- rainfall or drought manipulation
- pulse/press nutrients
- bigger N gradient range
- prescribed fire
- snow removal

New ideas can be posted to this survey when you take it or sent to EL (elind@umn.edu). There will be a process developed over the next year to decide on which if any of these treatments will be suggested as network-wide follow-on studies.

Concern was raised and noted that sites which have recently joined the network may be "left behind" if they must complete ten years of the current experiments before joining any new efforts.