**Title:** This awesome project is sure to be funded of course duh why not

**Short title:** Big awesome project

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**Potential participants:**

* From the academy:
  + Hao Ye
  + Jessica Burnett
  + Easton White
  + C. Bahlai
* From experiment units/LTER/etc
  + Someone from HEE
  + Someone form SESYNC?
  + Someone from NCEAS?
  + Someone from LTREB or LTER
  + Someone from Patuxent (who is experienced with desgining programs and with data challenges associated with these programs
* Statisticians/data scientists/programming/etc

Ideas for FY 2019 Powell center proposal

1. Problem/gap:
2. Potential problem statements
   1. Monitoring programs operate idiosyncratically in the United States
   2. Recent efforts , eg.., LTER andNEON sites to generate and share data are moving in the right direction
   3. What is the current state of the network/communication among monitoring progaerms? How abiout within moniotirng programs? and within these large-scale or long-temr montoring networks or sites?
      1. For example, rthere is a 100-year effort at the Indiana Yellowood Forest to collect data over a long time-period, and the inter-program communication seems high – but how is this data/protocol being shared among other groups?
      2. It seems that you need to (a) know of the reaserch/personnel being conducted there to even be aware of the reerch and (b) you need to reach out specifically to individuals
   4. Increasingly, there are ethical issues surrounding these large-scale and long-term monitoring program
      1. People want to be invited to collaborate or won’t hand over the data unti they are confirmed a coauthor – is this fair orunfair?
         1. In a way, it seems OK to ask to be in theloop regarding the data anlaysis, especially so that the data mangers/experts can ensure that the data is being used correctly
         2. However, some groups (I think like the French BBS or maybe the UK..idk) expect the ENTIRE group (like 20+ people) to be involved in the project merely because they heled collect the data and diesgn the protocol.
         3. What are the ethics surrounding this, especially for publicly-owned data.
            1. For example, the BBS team suggests that if their models are used that they are invited to collaborate – which makes total sense. But at what rate do they incline offers for collaboration? It’s not required for them to be coaturhos, though, because the data is still freely availababnle.
3. Provlems/issues to address from the 2018 propoposal reviews.
   1. How will you address the mismatch between the designed purpose of the monitoring program and the ecological processes to which the data is being applied
      1. (i.e., what are the differences between extant monitoring and \_\_\_?)
   2. The methods were not well defined
   3. Be careful with the tone – one reviewer thought we were attaching monitoring professionals
   4. One reviewer though that it was an exciting step forward
   5. Confusion among reviewers about what the objetives of the proposal were.
   6. Should we be theoretical or applied? I would prefer a little bit of both, but to be more applied I think the project would require a strong component of data manipulation, management, and storage.
4. Maximizing the power of collaborating monitoring programs -- how to harness data availability, storage and communication to increase the longevity of a research program
   1. I think it would be beneficial to reach out to the heads of some monitoring programs (e.g., 1 LTER rep (is there someone who organizes the science for all LTERs??), 1 LTER-head of science, 1 NEON science head, someone from state-owned or academic owned long-term experimental sites, a military base representative(s), species-specific managers,
      1. Maybe also someone from the Powell Center and SESYNC centers, or someone from the adaptive management professional group (with experience facilitating/moderating discussions‼‼!)
   2. Having scientific and logistical heads of these programs present at the first two and last two workshops—with the middle workshops inviting only the technical folks.
   3. I think it would also be beneficial to invite on-the-ground support to these meetings (e.g., that Jeffrey guy who manages a lot of the Purdue/Indiana HEE sites, but is also head of many of the avian monitoring/epxeriemntal projects)
   4. The workshop could start off as being a place to bring these people together in one place (say the first and second meetings), to identify challenges and issues with data collection, program/study design, and etc.
   5. It would also be awesome to invite that fungi expert, who is collecting novel data/genetics databases.
   6. Training undergraduate and graduate students is often a key component of these large-scale and long-term monitoring programs – and while their data is very useful, and of course the training is also useful, the turnaround is so high.
      1. Setting up regular data collection techniques
   7. Lit review needed:
      1. What is the current state of national efforts to collect similar data across the US, beyond NEON and LTER sites (when actually, LTER sites aren’t at all standardized).
5. Potential idea:
   1. Genetics/ eDNA
      1. Should we be collecting more of this over other types of data? Will it last longer? Is it less expensive?
         1. What would the losses of this be?

**1.0 Problem Statement**