**DRAFT – PolarTREC Teacher-Researcher Networking Strategy – DRAFT**

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**A: Pre-Expedition Networking:**

**1. How will you communicate with the researcher before the field experience?**

* Email seems to be working well

**2. Are there team or project conference calls or other preparatory activities that the teacher can participate in?**

* ??

**3. Are there ways you can collaborate before the expedition to inform the public, media, and other schools about the upcoming expedition?**

* I am interested in having Kim join at least one of my classes via Skype, if that is possible, before I leave for Finland. The best time would be a Thursday morning (9:45 a.m. Alaska time) as I have my science students starting then. We rotate schedules daily, so the beginning of the school day is the only time I would ask Kim to stay awake for, given the time difference!!
* I will write a press release/article about this project and my participation in it. I intend to send this to all the science teachers in the district via email, to all my school colleagues, to contacts in other parts of the country (and several overseas contacts) involved with education, the local media etc. I can draft the text, but I definitely would like Kim to collaborate/review the document before I distribute it.
* Other ideas??

**4. What background scientific information is essential for the field research? What journals, books, or other materials will the teacher use to learn this content?**

* Kim has already sent me several papers to read regarding the work – thanks!
* What else should I be looking at?

**5. What useful educational tools can you provide to the researcher?**

* I really hope to be able to develop some ideas/activities that will allow students to clearly understand:
  + overall carbon cycling
  + methane flux
  + soil microbe activity
  + the chemistry involved with this project
  + the importance of being able to interpret data
  + the importance of polar regions research (such as this project)
  + …?
* My hope is that such activities are very transportable, and could be used with different age groups (even adult) in different settings – not just classrooms, but for researcher presentations as well. I hope to include short videos as a learning tool.
* Perhaps Kim and I can put together a poster on the collaborative nature of the project, as viewed from the researcher perspective, as viewed from the teacher perspective, and as viewed from the student perspective (hopefully some students will be following along on the expedition!)
* Kim – what would be useful for you?

**B: Networking in the Field:**

**1. How can you be an effective assistant to the scientific efforts in real-time?**

* I hope to participate fully in all aspects of the research project!
* …?

**2. What science topics or issues would you like to discuss as a team while in the field?**

* The science behind the research (carbon cycling/methane flux/microbial activity).
* Comparison of this Finland research to Kim’s Barrow research
* How carbon cycling fits into the big picture of climate change
* Soil microbes in general (they tend to be overlooked so much it seems!)
* The northern wetland ecosystem in general
* …

**3. How will you revisit your thoughts and ideas (regarding education and outreach) effectively in the field, when there is so much else to do?**

* I would like to try to connect with a local school (in Utsjoki?). A visit (or visits) there would help to keep education and outreach in mind (and practiced).
* I would like to do a PolarConnect event the first week there, so I can catch my students before they leave for the summer. If this is to much, I hope to Skype with the classes.
* Perhaps Kim and I can agree to have e/o (education/outreach) check-ins now and then while I am there? (Whee-O, Eee-O, I can hear the late night conversations already… ☺)
* Does Kevo have seminar nights, where the different researchers tell a little about their projects? If so, this would be a great time to discuss and practice a little education and outreach!

**4. Can you identify unique aspects of the fieldwork that will engage students and the public?**

* Comparisons/Contrasts between Alaskan northern wetlands and Finnish northern wetlands
* Measurement of something you hear a lot about, but can’t see (gases)
* Playing around in a bog (ok, that is the middle school part of me talking☺)
* Global nature of the work
* The instrumentation & technology – how you measure something you can’t see
* …

**C: Post-Expedition Networking:**

**1. What skills, as an educator, can you offer the researcher?**

* I hope to be able to translate the research into content that students (particularly secondary) can get a handle on.
* In doing so, I hope to be able to convey to all ages the importance of this research, and polar research in general…and why funding research is so important!!
* One goal is to break out beyond the classroom, and use this research and content as a component of an “Earth Systems Science” student program (this idea is only just beginning to form)
* I would like to start a local wetlands monitoring site at Creamer’s Wildlife Refuge in Fairbanks, where students could gather data – hopefully similar to (or perhaps just somewhat based on) what we do in Finland.

**2. What specific aspects of post-fieldwork are you interested in for follow-up?**

* I’m not sure how to answer this at the moment….

**3. How will you collaborate to write and review lesson plans after the expedition?**

* I anticipate that email will work well
* Once Kim is back in the USA, I would think Skype and FaceTime could be useful too.

**4. How can you complement your lesson plans with an educational tool that is useful to your researcher?**

* Kim, what would be useful to you?

**5. How will you regularly communicate outreach, teaching, and research updates with one another into the future?**

* I anticipate that email will work well
* Kim, are you coming back to Alaska at all?

**6. How can I/we use ARCUS funded travel support?**

* I plan to present a session on this research at the Alaska Math/Science Conference in the fall in Anchorage.
* I could be great to co-present with Kim at a conference…?