**Calendar outline:**

April 28 – last day of GW classes

**May goals:** Move, finish up classes and finals (1 exam, 1 paper), finish DW survey (?)

May 1 – move to DC, **ECWG grant due**

May 3 – final for Ecology & Evolution of Societies (probably not taking)

*May 4-7 – finish SERC DW survey (potential)*

May 11 – last day of UMD classes

*May 12-14 – finish SERC DW survey (potential)*

May 16 – UMD final exam due

May 18 – Harlan training – field trip

*May 19-21 – finish SERC DW survey (potential)*

*May 24-28 – finish SERC DW survey (potential) OR visit friends??*

**June goals:** Put SERC study plan into action and begin sampling scheme / strategy. Begin building and testing out tree collars. Look into soil moisture data to define upland / lowland gradient. Work with Sean to code decay class transitions.

**‘To-do’ list from research proposal**:

* identify ten DW samples (5 each for 2 species) from each decay class (1-5) at ridge and valley sites within the ForestGEO plot.
* visualize and quantify decay class transitions across 3 completed surveys
* record species, dimension, hardness, density, decay class, and microbial community composition for each DW sample.
* field C fluxes for DW samples (need to coordinate availability of Los Gatos GHG Analyzer)
* build a semi-rigid tree collar that can be used with the Los Gatos GHG Analyzer to further gather gas flux measurements from larger DW logs with higher precision
* collect wood cores and extract DNA for targeted amplicon sequencing of the 16S rRNA region targeting bacteria on an Illumina MiSeq platform
* compare sequences to reference databases, identify community composition, saprotrophs and methanogens

**Things I need help with**

* sequencing and preparing microbial samples (taking wood cores and associated lab work) – help from becca to get me started?
* building flexible tree collars – touch base with marc for his expertise / experiences with it?
* decay class transition code – corral sean for this time
* Pairing timings of microbial sampling with respiration measurements – how to go about ?

WBFC GRANT

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| **Long-Term Chamber**  To measure field C flux from deadwood and be used with respiration collars | LICOR 8100-104 flux chamber | $4,000 |
| LICOR respiration collars for C release measurements on deadwood (~2) | $100.00 |
| **Field supplies**  For deadwood surveying including decay class measurement | Haglof Increment borer for DW microbial sampling wood cores | $178.75 |
| Penetrometer for testing wood hardness | $55.95 |
| **Semi-rigid tree collar**  To be self-constructed | Polycarbonate plastic sheet (for peripheral rims of the collar) | $60.00 |
| Belt-style straps (2) | $15.00 |
| Neoprene strips (adhesive and gas-tight) | $22.00 |
| Luer-lock stopcocks (2) | $100.00 |
| Tubing: PFTE coated PVC parallel tubes, coiled vent tube | $30.00 |
| Miscellaneous materials: snap-on rubber caps, drill bit for acryllic | $10.00 |
| **Transportation to field site** | Mileage (based off IRS 2020 standard mileage rates at 57.5c / mile)  74 miles round trip from Alexandria, VA to SERC \* 10 trips | $425.50 |
| **TOTAL** |  | **$4,997.20** |

COSMOS GRANT

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| **Microbe community sequencing**  10 samples per decay class (5 for valley, 5 for ridge sites) for 2 species of wood: (10 \* 5 \* 2) = 100 samples | Molecular reagents (primers, PCR reagents, cleanup, and quantification): $19.80 / sample | $1,980.00 |
| DNA extraction using a modified CTAB approach: $6.00 / sample | $600.00 |
| Sequencing at University of Idaho’s iBest facility (MiSeq runs to assay wood samples): $16.50 / sample | $1,650.00 |
| **Transportation to field site** | Mileage (based off IRS 2020 standard mileage rates at 57.5c / mile)  74 miles round trip from Alexandria, VA to SERC \* 10 trips | $425.50 |
| **Field supplies** | Licor respiration collar for C release measurements on DW | $100.00 |
| Haglof Increment borer for DW microbial sampling wood cores | $178.75 |
| Penetrometer for testing wood hardness | $55.95 |
| **TOTAL** |  | **~~$4,990.20~~ (funded $4500)** |