Powell Center Data Management Plan: Limits to Ecological Forecasts

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| **Data Inputs** (list of datasets used to produce the synthesized data product(s)) | | | | |
| **Title** | **Format (csv, ascii)** | **Data Volume Estimate (MB, GB, TB)** | **Source/URL** | **Use Restrictions** |
| Yellowstone Bison | csv | 1 kB | http://datadryad.org/resource/doi:10.5061/dryad.181qq | Cite original work |
| Sea Otter | csv | 1 MB | Not currently online | Cite original work |
| Breeding Bird Survey | csv | 285 MB | https://www.pwrc.usgs.gov/bbs/ | Cite data producers |
| Dipodomys spp. (Kangaroo rats) | csv | 2.2 MB | http://portal.weecology.org/portal\_data | Cite data papers |
| Grasshopper spp. | csv | 5 MB | http://ghopclimate.colorado.edu/index.html | none |
| Sagebrush steppe plants | csv | 15 kB | http://esapubs.org/archive/ecol/E091/243/metadata.htm | Cite data paper |
| AZ Desert Annuals (Portal LTREB) | csv | 528 kB | http://portal.weecology.org/portal\_data | Cite data papers |
| Artemisia spp. | csv | 36 MB | https://figshare.com/articles/sageAbundance/3485237 | Cite original papers |
| Alpine tundra plants (Niwot LTER) | csv | 6.5 MB | http://niwot.colorado.edu/data/data/plant-species-composition-data-for-saddle-grid-1989-ongoing | Cite data producers |
| Winter Annuals (Desert Lab LTREB) | csv | 7 MB | http://www.eebweb.arizona.edu/faculty/venable/LTREB/LTREB%20data.htm | Cite data paper(s) |
| Mt. St. Helens plants | csv | 390 kB | https://dx.doi.org/10.6084/m9.figshare.c.3303093.v1 | Cite data paper |

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| **Data Processing** (will occur during the course of Working Group activities) | |
| Access and Sharing | *All data will be hosted on GitHub for access by working group members. Large datasets will be hosted on USGS server or Google Drive.* |
| Data Storage | *Data will be permanently stored on:*   * *Option 1: USGS ScienceBase through Powell Center* |
| Transformation and processing workflow | *Data may be transformed or aggregated. All processing will be done using R script with heavy comments. These R scripts will “travel” with the data in metadata files.* |
| Technology needs | *Free SQL software and R.* |

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| **Proposed Data Publishing[[1]](#footnote-1)** (repeat if there will be multiple derived data products) | |
| Title | *PopEnvTS (Population and Environment Time Series)* |
| Description | *Database of publicly-available population time series and associated environmental covariates.* |
| Format | *SQLite Database (.db3 or .sqlite)* |
| Data Volume Estimate | *10 GB* |
| Data Storage | *The derived data will be hosted and made available online using:*   * *Option 1: USGS ScienceBase through Powell Center* |
| Metadata Point of Contact | *Andrew Tredennick* |
| Restrictions | *No. All data is already in the public domain.* |

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| **Proposed Data Publishing[[2]](#footnote-2)** (repeat if there will be multiple derived data products) | |
| Title | *PopForecasts (Forecasts of population abundances)* |
| Description | *Repository of population forecasts for specific times and locations.* |
| Format | *SQLite Database (.db3 or .sqlite)* |
| Data Volume Estimate | *10 GB* |
| Data Storage | *The derived data will be hosted and made available online using:*   * *Option 1: USGS ScienceBase through Powell Center* |
| Metadata Point of Contact | *Andrew Tredennick* |
| Restrictions | *No. All forecasts will be made public.* |

1. USGS has outlined a new, formal data publishing process, applicable to all projects started in FY17+, as part of its Fundamental Science Practices. More details on this can be found here: <https://www.usgs.gov/fsp/policies.asp> [↑](#footnote-ref-1)
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