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A Concise Experiment Plan for the Arctic-Boreal Vulnerability Experiment

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Documentation Revision Date: 2022-02-22

Dataset Version: 1.1

Summary

This document presents the Concise Experiment Plan for NASA's Arctic-Boreal Vulnerability Experiment (ABoVE) to serve as a guide to the Program as it identifies the research to be conducted under this study. Research for ABoVE will link field-based, process-level studies with geospatial data products derived from airborne and satellite remote sensing, providing a foundation for improving the analysis and modeling capabilities needed to understand and predict ecosystem responses and societal implications. The ABoVE Concise Experiment Plan (ACEP) outlines the conceptual basis for the Field Campaign and expresses the compelling rationale explaining the scientific and societal importance of the study. It presents both the science questions driving ABoVE research as well as the top-level requirements for a study design to address them.

This dataset provides the archived copy of the ABoVE Concise Experiment Plan in pdf format, as well as high-resolution copies of the figures from the document.

Figure 1: The Arctic-Boreal Vulnerability Experiment (ABoVE) is a NASA Terrestrial Ecology Program field campaign that will take place in Alaska and western Canada between 2016 and 2021.

Citation

ABoVE Science Definition Team. 2018. A Concise Experiment Plan for the Arctic-Boreal Vulnerability Experiment. ORNL DAAC, Oak Ridge, Tennessee, USA. https://doi.org/10.3334/ORNLDAAC/1617

Table of Contents

1. Dataset Overview

Project: Arctic-Boreal Vulnerability Experiment

The Arctic-Boreal Vulnerability Experiment (ABoVE) is a NASA Terrestrial Ecology Program field campaign based in Alaska and western Canada between 2016 and 2021. Research for ABoVE links field-based, process-level studies with geospatial data products derived from airborne and satellite sensors, providing a foundation for improving the analysis and modeling capabilities needed to understand and predict ecosystem responses and societal implications.

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2. Data Characteristics

This dataset provides the archived copy of the updated ABoVE Concise Experiment Plan in pdf format (**Updated_Concise_Experiment_Plan_for_NASA_ABoVE.pdf**).

Companion Files:

Also provided are

1. High-resolution copies of the figures from the document (compressed in ACEP_Figures.zip)

2. List of changes to the experiment plan (ACEP_Erratum.pdf)

3. A copy of this user guide document (ABoVE_Concise_Experiment_Plan.pdf)

3. Application and Derivation

ABoVE aims to build a lasting legacy of research through an expanded knowledge base, the provision of key datasets, the development of decision support products and the fostering of new partnerships.

4. Quality Assessment

Not applicable

5. Data Acquisition, Materials, and Methods

 Additional information on ABoVE can be found at: http://above.nasa.gov.

6. Data Access

These data are available through the Oak Ridge National Laboratory (ORNL) Distributed Active Archive Center (DAAC).

A Concise Experiment Plan for the Arctic-Boreal Vulnerability Experiment

Contact for Data Center Access Information:

- E-mail: uso@daac.ornl.gov
- Telephone: +1 (865) 241-3952

7. References

8. Dataset Revisions

An updated ABoVE Concise Experiment Plan was released on Feb 22nd, 2022. The updated ABoVE Concise Experiment Plan includes the following updates:

- On page 2, where the date is listed, make a note that "Minor editorial updates were made in 2021".
- Take out the Figure hotlinks and tiny urls for the figures throughout the document:
  - Figure 1.1 – also removed text referencing interactive webmap (The figure number contains a hyperlink to view an interactive web map of this figure: http://tinyurl.com/above-domain.)
  - Figure 4.1 (page 40 of document or listed page 34) – also removed text referencing interactive webmap (The figure number contains a hyperlink to view an interactive web map of this figure: http://tinyurl.com/above-spatial-hierarchy**.)**
  - Figure A1
  - Figure A2
  - Figure A3
  - Figure A4 *(a) Level II ecoregions*
  - Figure A4 *(b) Tundra vegetation types*
  - Figure A5
  - Figure A6
  - Figure A7
  - Figure A8
  - Figure A9
  - Figure A10
  - Figure A11
  - Figure A12
- In paragraph 1 of Appendix A, remove "Those interested in using this database to explore characteristics of the Study Domain, as well as the wide range of research and monitoring activities that are ongoing in this region can access this database through a webbased GIS system https://above.maps.arcgis.com/home/gallery.html)[11] ."
- Remove the footnote at the bottom of Appendix A: "11 The figure number (in blue) of each map listed in Appendix A contains a hyperlink to view an interactive web map of the figure, which can also be found here: **http://tinyurl.com/ACEPfigures."**
- Change footnote 12 to footnote 11 after removing previous footnote 11.
- Appendix A Table A1 (p66-67) lists research areas F, G, and H as occurring in Ecoregion/CAVM Subzone "Taiga Shield". The Ecoregion/CAVM Subzone for Research Areas F, G, and H should read "Taiga Plain". This was previously in an Erratum posted on the ABoVE site. This has now been removed from the website.

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