

Names:

Date:

Using the Tree Atlas Tool to Find Expected Changes in Tree Species Abundance for Studies Conducted in the Eastern US

Guiding Question:

To what extent will climate change impact suitable habitat of the abundant tree species identified in your forest plot?

Definitions:

- *FIA is the Forest Inventory and Analysis conducted by the US Forest Service.*
- *Importance Value (IV) is a relative abundance measure that combines relative density and basal area per species and ranges from 1-100 (a stand with only one species = 100).*

Step 1. Explore Tree Atlas and Develop your Research Question and Hypothesis

1. Spend 5-10 minutes exploring the *Tree Atlas* tool using the *Tree Atlas Procedure* and/or the *Tree Atlas Screencast Tutorial*.
2. With your partner, refine the research question that you developed while *Investigating Climate Change Data* so that your question can be answered using the *Tree Atlas* tool and the climate data you have already recorded.
3. Record your revised research question in your science notebook.
4. Write a hypothesis statement that will either be supported or not supported by the results of your investigation and record it in your science notebook.

Step 2. Develop Investigation Plan and Record Results

1. With your partner, develop a basic investigation plan and data collection table. Record your **investigation plan** and create your **data table** in your science notebook.
2. Use the *Tree Atlas* tool and your *Investigating Climate Change Data* results to investigate your research question and complete your data table.
3. Remember to include any other notes, observations, or questions that come up during your investigation in your science notebook.

Step 3. Analysis and Discussion

1. In your science notebook:
 - a. Record the notable outcomes of your investigation, including answering the question: **Was your hypothesis supported by the data from your investigation? Why or why not?**
 - b. Develop one new research questions you have after viewing your results (it does not need to be answerable with the *Tree Atlas* tool). What information would you need to answer this question?

