Identifying Trees using a Dichotomous Key

Instructor Notes

This training is designed as an introductory course for new Virginia Master Naturalist trainees and may be led by an in-person or online instructor. Additional notes have been added below depending on the delivery method.

Background

Dichotomous keys are a scientific tool utilized to identify objects or organisms. Users are presented with a series of paired statements, which the user chooses from to identify the object or organism of interest. Each paired statement uses characteristics to help the user correctly identify their object or organism.

This training focuses on learning how to use a dichotomous key to identify trees in Virginia. Understanding the vocabulary and characteristics that may appear in the key is an important aspect of being able to use the key. In addition to learning about dichotomous keys, students are also taught the basic characteristics of trees that they will use during exercises with the dichotomous key.

Objectives:

Students will be able to…

- Name characteristics used by scientists and naturalists to identify trees.
- Use a dichotomous key to identify a tree specimen.
- Categorize a tree specimen by its leaf structure.

General Notes

Before Instruction:

While there are examples within the presentation that can be used for identification, the instructor(s) may also reach out to participants and encourage them to collect a branch to identify after the exercises.

Instructors are also encouraged to share the following link to Common Native Trees of Virginia, which contains a dichotomous key for identifying a tree using leaves: https://dof.virginia.gov/wp-content/uploads/Common-Native-Trees-ID_pub.pdf

For in-person instruction, instructors may choose to obtain a couple of physical copies of the Common Native Trees of Virginia to use during the exercises.

After Instruction:

Instructors should send out links to resources, encourage trainees to find other identification keys to use in the other classes within the Basic Training Course.

The survey found in the Evaluation section of these Instructor Notes should be distributed at the end of the class. The survey could be printed out and collected afterwards, or emailed to participants via a site such as Google Forms.

Target Audience:

Virginia Master Naturalist trainees. Trainees may have a wide variety of backgrounds, from little to no experience with scientific vocabulary and tools, to others that may use scientific vocabulary and tools in their everyday life and career. Be prepared to spend more time explaining basic concepts to those unfamiliar, and encourage those with more experience to assist those that may need additional guidance.

Agenda

Topic	**Slide(s)**	**Estimated Time**
Introduction & Objectives	1-2	5 minutes
Tree Identification & Leaf Basics	3-8	15 minutes
Dichotomous Keys	9	5 minutes
Activity: Dichotomous Key for Leaves	10-14	20 minutes
Resources & Answer Key	15-16	5 minutes
Questions	n/a	10 minutes

Estimated Total Time for Training: 60 minutes

Evaluation

Please rate the following statements using a scale of 1 to 5, with 1 representing strongly disagree and 5 being strongly agree.

	1 Strongly Disagree	**2 Disagree**	**3 Neutral**	**4 Agree**	**5 Strongly Agree**
Before this training, I had knowledge of dichotomous keys.					
Before this training, I had used a dichotomous key.					
Before this training, I had knowledge of identifying characteristics of trees.					
During this training, I felt that the instructor was knowledgeable about dichotomous keys.					
During this training, I felt that the instructor was knowledgeable about tree identification.					
The training was well paced.					
The training was well organized and structured.					
The exercises were directly related to skills I will use as a Master Naturalist.					
After taking this training, I feel confident about using a dichotomous key.					
After taking this training, I feel confident about identifying a tree using a dichotomous key.					

Additional comments regarding the above statements:

Please respond to the following questions regarding the training:

1. What was your favorite part of the training?

2. Was there any part of the training you feel could be improved? Would you add or remove any part of this training?