


Look for this  to identify Master Naturalist Certificate classes



## WINTER BOTANY

*Presented by Ken Moore, former Assistant Director, N.C. Botanical Garden*

 The winter season is a beautiful time to identify plants. They are pared down to their essence and you can enjoy the bark and twig colors, the buds holding next year's growth, and the seeds remaining from the previous growing season. Spend some time out in the Gardens and Duke Forest with Ken Moore to learn the secrets of winter botany. Text provided: "*Winter Tree Finder*," by May Watts.

**2 Saturdays**, January 21-28, 1-4 pm  
(snow date Feb. 4)


**Location:** Doris Duke Center

**Master Naturalist Certificate elective**

**Participant Limit:** 15  
**Fee:** \$100; Friends \$80

## HUMAN IMPACT ON THE ENVIRONMENT: The Ecology of Change

*Daniel Richter, Professor, Nicholas School of the Environment, Duke University*

 We have always influenced our environment, from Native Americans directing the prairie fires to Europeans slowly selecting grain for larger seeds and, as a result, creating modern wheat. Today the change we are creating is moving very rapidly, perhaps outpacing our understanding. Join us to review the environmental influence of humans across time and debate the future. Text and other materials are supplied in class.

**4 Wednesdays**, Feb. 8-29, 6:30-9 pm

**Location:** Doris Duke Center

**Master Naturalist Certificate required course.**


**Participant Limit:** 20  
**Fee:** \$150; Friends \$120

# NATURAL HISTORY

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## BASIC BOTANY AND PLANT GROWTH

*Alex Motten, Associate Professor, Duke University Department of Biology*

 How does a plant grow? How does it manage water and nutrients? What factors influence the production of flowers and fruits? This course will explore these questions and more using a combination of lecture and hands-on approaches. You will leave with an appreciation of how a plant responds to its environment, and how horticultural techniques influence plant development.

**4 Thursdays**, Feb. 9-March 1, 6-9 pm

**Location:** Doris Duke Center

**Home Horticulture Certificate required course**

**Master Naturalist Certificate required course**

**Participant Limit:** 15


**Fee:** \$120; Friends \$100

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## WATER: The Ecology of Change



*instructor to be announced*

 Life on earth would not exist without water, yet we often take water for granted. Although the water on planet Earth is constant, with none added or subtracted, it is also in constant motion: liquid, frozen, snow, vapor. As it moves around the Earth it is contained as surface water, moving water, fresh water, ocean water. Each form acts differently and each form is essential for the entire cycle to work properly. Study water from an ecological perspective and gain a new appreciation for the wonders of the water planet. All supplies and text included in class fee.

**4 Tuesdays**, Feb. 21-March 13, 6-9 pm

**Location:** Meet at the Doris Duke Center


**Participant Limit:** 15

**Fee:** \$150; Friends \$120

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## EARLY SPRING JEWELS: FIELD STUDIES

*Ken Moore, former Assistant Director, NC Botanical Garden*

 To paraphrase Ralph Waldo Emerson: There are days, in almost any season, wherein the world reaches its perfection. We are hoping that this is one of those days as we hike around Penny's Bend looking for the Dutchman's breeches, trout lily, and other signs of spring perfection. Activity level: moderately strenuous.

**Saturday**, March 31, 9 am-1 pm

Meet at Penny's Bend; directions will be provided

**Master Naturalist Certificate elective**

**Participant Limit:** 15

**Fee:** \$18; Friends \$15



## LOCAL FLORA: SPRING

*Ken Moore, former Assistant Director,  
N.C. Botanical Garden*



Celebrate the spring season exploring North Carolina with a great naturalist and instructor. Ken will help you see the amazing variety among plants and understand their unique adaptations and recognizable traits. Field trips include observations in a variety of habitats, using a key to identify plants, and noting undesirable plants. *"Tree Finder: A Manual for Identification of Trees by Their Leaves,"* by May Theilgaard Watts, and all other supplies included in fee.

**4 Saturdays,** April 7, 14, 28, May 5, 9 am-1 pm  
**Location:** directions and location to be provided  
for local field trip destinations  
**Master Naturalist Certificate required course**

**Participant Limit:** 15  
**Fee:** \$120; Friends \$95

## BIRD WALKS

*Cynthia Fox, Wild Bird Center, Chapel Hill*

Join Cynthia for an early stroll through the Gardens. Listen and learn to recognize many bird songs, spot the bird, and identify these wonderful songsters. This is an opportunity to learn more about birding or a wonderful time to interact with fellow birders. (Children are welcome to register if they are 8 years old or older, accompanied by a registered adult.)

Please dress for the weather and bring your binoculars. In the event of questionable weather, call 919-668-1707.

**Saturdays,** April 7 & 28, 8-10 am  
**Location:** Meet at the Doris Duke Center

**Participant Limit:** 15  
**Fee:** \$5; Friends free  
(registration required)