

## Environmental Studies School Course 4 Schedule Friday & Saturday, September 25 & 26, 2015

### Garrett College

Room 210, Continuing Education Building  
687 Mosser Road, McHenry, Maryland 21541

#### Day One – Friday, September 25, 2015

**8:00 - 8:20 - Registration and Coffee/Tea/Morning Snacks**

**8:20 – 8:30 – Welcome and Announcements**

**8:30 - 9:30** – Alan Klotz, MD DNR Inland Fisheries Service, Western Regional Fisheries Manager & Adjunct Instructor Garrett College, Fisheries Management & Biology, Water Quality Assessment.

**YOUTH PROGRAMS IN ENVIRONMENTAL EDUCATION:** A presentation of the Cove Run Trout Stream Restoration Project by Northern High School Environmental Science Students.

**9:40 – 10:40** – Keith Eshleman, Professor, Watershed & Wetlands Hydrology, University of MD Center for Environmental Science, Appalachian Laboratory, Frostburg, MD

**ECOLOGY – WATER:** Learn about water resources; surface water, groundwater, the hydrologic cycle, including worldwide supply, distribution, renewal and management.

**10:50-11:50** – Katia Engelhardt, Research Associate Professor, Wetlands Ecosystems, University of MD Center for Environmental Science, Appalachian Laboratory, Frostburg, MD

**WETLANDS:** Explore the various types of inland and coastal wetlands, their qualities and functions; discuss natural and human interactions affecting wetlands; review the important values of natural wetland ecosystems.

**11:50-12:40 – LUNCH** (provided on-site)

**12:40-1:40** – Katie Fallon, Contemporary Nature Writer, Creative Writing Instructor WVU, Founder of the Avian Conservation Center of Appalachia, Morgantown, WV

**THE CERULEAN BLUE WARBLER:** The tiny migratory songbird and its struggle to survive in ever-shrinking bands of suitable habitat in the Appalachians; emblematic of the plight of migratory birds in general.

**2:00 – 4:00 – FIELD TRIP** – Bear Creek, Friendsville, MD

Alan Klotz, MD DNR Inland Fisheries Service, Western Regional Fisheries Manager & Adjunct Instructor Garrett College. The field trip will include an electro-fishing demonstration and aquatic macro invertebrate sampling of the stream. Several pairs of different size of chest waders will be available for those students who would like to assist with sampling in the stream; all others will be able to observe.

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#### Day Two – Saturday, September 26, 2015

**8:00 - 8:20 – Registration and Coffee/Tea/Morning Snacks**

**8:20 – 8:30 – Morning Announcements**

**8:30 - 9:30** – Kevin Dodge, Professor of Wildlife & Biology, Director of Natural Resources & Wildlife Technology Program at Garrett College

**WILDLIFE - AQUATIC ANIMALS:** Examine fresh water and salt water animals, their world distribution, live cycles and benefits to mankind; review the life support ecosystems of aquatic animals, including the special functions of estuaries, coastal wetlands, coral reefs and barrier islands.

**9:40 - 10:40** – Kevin Dodge, Professor of Wildlife & Biology, Director of Natural Resources & Wildlife Technology Program at Garrett College

**PLANTS – AQUATIC PLANTS:** Explore plants in aquatic ecosystems, including plant culture, beneficial and harmful plants, eutrophication and the effect of pollutants on aquatic vegetation.

**10:50 - 11:50** – Eric Davidson, Director & Professor of Appalachian Laboratory, University of MD Center for Environmental Sciences, Frostburg, MD

**ENVIRONMENTAL SCIENCE - SUSTAINABILITY:** Review the practices a society must use to sustain biodiversity needed by society in agriculture and economics which will meet the demands of an ever-increasing and demanding human world population.

**11:50 - 12:40 – LUNCH** (provided on-site)

**12:40 - 1:40 – EARTH STEWARDSHIP:** *Green Fire*, a documentary film about legendary environmentalist Aldo Leopold; highlights Leopold's extraordinary career, tracing how he shaped and influenced the modern environmental movement.

**1:40 - 2:00 – COURSE REVIEW AND WRAP-UP** (optional for those not taking the exam)

**2:00 – 4:00 – WRITTEN EXAM** (only required for those seeking consultant status)

**REGISTRATION FORM**  
**ENVIRONMENTAL STUDIES SCHOOL – COURSE 4, SERIES I**  
**THE LIVING EARTH – WATER & RELATED ISSUES**  
**Friday & Saturday, September 25 & 26, 2015**

Please choose your registration:

           **Two-day course Registration Fee of \$100** includes two days of 8 one-hour classes, a two-hour field trip, printed Student Study Guide, and lunch on both days.

           **Sept. 25 Only Registration Fee of \$60** includes 4 one-hour classes, two-hour field trip, lunch

           **Sept. 26 Only Registration Fee of \$50** includes 4 one-hour classes, and lunch

**Name:** \_\_\_\_\_

**Mailing Address:** \_\_\_\_\_

**Phone:** \_\_\_\_\_ **Email:** \_\_\_\_\_

**If NGC member: Club** \_\_\_\_\_ **District** \_\_\_\_\_

Are you taking the written exam for credit toward Environmental Consultant status? \_\_\_ Yes \_\_\_ No

Are you taking this course as a refresher? \_\_\_\_\_ Yes

**Mail registration form & check to:** Linda Harris, 3252 Walnut Bottom Rd., Swanton, MD 21561  
301-453-3293, lindaharris355@aol.com

**Make check payable to:** Mountain Laurel Garden Club

**Any special needs or diet restrictions?** If so, please provide details:

# Environmental Studies School Course Information

## Course 4, Series I – The Living Earth – Water & Related Issues

**Friday & Saturday, September 25 & 26, 2015**

Sponsored by Federated Garden Clubs of Maryland  
President: Nicki Schwab

Hosted by the Mountain Laurel Garden Club, District V  
President: Kathleen Gibbs  
ESS Chair: Linda Harris 301-453-3293 lindaharris355@aol.com

**Mission Statement:** To teach environmental literacy; to cherish, protect and conserve the living earth.

**School Description:** The Living Earth Environmental Studies School is composed of a minimum of forty hours of study. Specific units are divided into four courses of ten hours each which includes a two-hour field trip. The courses investigate AIR, LAND and WATER. The units are divided into Ecology and Environmental Science, Life on Earth, and Earth Stewardship. Optional Exams are offered for those wishing to become NGC Accredited Environmental Consultants. Environmental Studies Schools are open to everyone whether or not they are garden club members.

### Course Requirements:

Official Text for Course 4: *Living in the Environment* by G. Tyler Miller

### Available at significant savings through Amazon.com

(Editions 12 & 13 are available used for \$10 including shipping)

**Copies are also available to borrow – contact Linda Harris**

*Living in the Environment* reading requirements for Course 4, listed by edition:

#### **Chapters should be read before classes start**

7<sup>th</sup> Edition - Chapters 3, 13, 17, 18, 22, 24

8<sup>th</sup> Edition - Chapters 3, 13, 17, 18, 23, 25

10<sup>th</sup> Edition – Chapters 8, 10, 11, 18, 19, 26, 27

11<sup>th</sup> Edition – Chapters 8, 10, 11, 13, 17, 20, 27, 28

12<sup>th</sup> Edition – Chapters 1, 4, 7, 13, 15, 19, 20, 24, 26, 27, 28; Appendices 5 & 6

13<sup>th</sup> Edition – Chapters 1, 4, 7, 14, 19, 24; Appendices 1, 2, 3; Glossary

14<sup>th</sup> Edition – Chapters 1, 4, 7, 8, 14, 15, 19, 22, 26, 27; Appendices 2 & 5; Glossary CD-Rom

15<sup>th</sup> Edition – Chapters 1, 3, 6, 10, 12, 13, 14, 17, 18, 19, 21, 24, 25, 27; Supplement 4 & 5; Glossary

16<sup>th</sup> Edition – Chapters 1, 3, 4, 6, 7, 8, 9, 11, 13, 20, 22, 23, 24, 25; Plus Supplements 3, 4, 7, 8, 9, 11, 12

17<sup>th</sup> Edition – Chapters 1, 8, 11, 13, 24, & Glossary

## SUPPLEMENTAL READING LIST

*Bringing Nature Home*, Douglas W. Tallamy  
*The Diversity of Life*, E.O. Wilson (1992 & 2000)  
*Earth Making a Life on a Tough New Planet*, Bill McKibben (2010)  
*Earth In the Balance*, Al Gore (1992)  
*End of Nature*, Bill McKibben (2005)  
*Enough: Staying Human in a Engineered Age*, Bill McKibben (2003)  
*Fierce Green Fire: The American Environmental Movement*, A. Shabecoff (2003)  
*If You Love This Planet*, Helen Caldicott (2009)  
*In Defense of Nature*, John Hay (2007)  
*Land That Could Be: Environmentalism & Democracy in the 21<sup>st</sup> Century*, Shuki (2001)  
*Last Child in the Woods*, Richard Louv (2005 % 2008)  
*The Lorax*, Dr. Suess (1978)  
*Making Collaboration Work*, Wondolleck & Taffee (2000)  
*Maps of Time: An Introduction to Big History*, David Christian  
*Precious Heritage: The Status of Biodiversity in the US*, Stem, Kutner, Adams (2000)  
*Sand County Almanac and Sketches Here & There*, Aldo Leopold (1990)  
*Sense of Wonder*, Rachael Carson (To introduce children to nature) (1990)  
*Silent Spring*, Rachael Carson (1962)  
*Something New Under the Sun: An Environmental History of the 20<sup>th</sup> Century* (2001)  
*Ten Minute Field Trips*, Helen Ross Russell (1998)  
*Teaching Kids to Love the Earth*, Herman, Passineau, Schimpf and Treuer (1990)  
*Wilderness and the American Mind*, Nash (2001)

## DRESS CODE

Comfortable clothing and appropriate outerwear; including waterproof hiking shoes for the outdoor field trip. Several different sizes of waders will be available for those that want to volunteer to do stream monitoring and electro-fishing.

## **HOTEL INFORMATION**

There are several hotels close to Garrett College in McHenry, Maryland:

### **The Lodges at Sunset Village**

Log Cabin Suite Hotel with rooms for one person up to a group of 10  
23900 Garrett Highway, McHenry 301-387-2227

### **Wisp Resort Hotel**

290 Marsh Hill Road, McHenry 301-387-4000

### **Lake Pointe Inn B&B**

Luxury inn on the lake  
174 Lake Pointe Drive, McHenry 301-387-0111

There are also many homes to rent for groups  
Contact **Taylor-Made** at 866-351-1119 or [www.deepcreekvacations.com](http://www.deepcreekvacations.com)

Driving directions can be provided upon request.