**Forest Watch Workshop Agenda**

July 11, 12 and 13, St. Johnsbury School, St. Johnsbury, VT  
August 1, 2, and 3, 2012, Morse High School, Bath, Maine  
August 8, 9, and 10, UNH, Durham, NH  
August 13, 14, and 15, Keene State University Conference Center, Keene, NH

$600, 2.4 Continuing Education Credits

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**Day 1: Background science and Plot Lay-out/Stand Measurements**

8:45 Convene – Welcome and Introductions

9:00-10:30 What is *Forest Watch*?  
Green Canary’s Warning from indicator species of trees  
Background on ground-level ozone, air quality effects on forest health  
Regional and global issues of climate change

10:45 Discussion of experiential learning and state standards.  
Over-view of afternoon field work—Selecting a study site and conserving it.

11:15 - 12:00 LUNCH

12:00 - 3:00 Field Work - Plot lay-out & basic stand measurements; tree selection & tagging, overstory/understory, needle sample collection, live crowns, heights, diameters, tree cores

3:30 - 4:30 Prepare samples for water content determinations & pigment analysis, preserving cores, preparing samples for shipment to UNH.

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**Day 2: Physical Measurements, Anatomy, Microscopy and Chlorophyll**

8:45 - 10:00 Student measurements; determining needle age class, measuring needle length, visual symptoms of ground-level ozone damage, Data Submission. Measuring leaf area and assessing leaf health.

10:15 – 12:00 Anatomy of a pine needle and a leaf, petiole and bud – Making thin sections,

12:00 - 12:45 LUNCH

12:45 – 3:00 Extracting chlorophyll, spectrometer readings.

3:15 - 4:30 Scanning needles and leaves with VIRIS, introduction to light.
Day 3: Spectral measurements and remote sensing

8:45 - 10:00 Spectral reflectance measurements as an indication of needle/tree health, Visible Infrared Intelligent Spectroradiometer (VIRIS), the link between spectral measures and remote sensing. How to use your students’ VIRIS data.

10:15 – 12:00 Remote sensing image of your school. Interpreting images with Multispec.

12:00 - 12:45 LUNCH

12:45 – 2:30 Interpreting your results, correlations of measurements, drawing conclusions about the health of your trees, building student projects.

2:45- 4:30 Integrating Forest Watch with standards and your curriculum. Adding more open Inquiry. Communicating student findings.

4:30 – 5:00 Wrap-up Discussion

Once You Register, a more detailed Information Packet will be sent to you.
Please Be Prepared for Field Work
Wear Boots & Long Pants when we're in the woods.
Bring lunch, water, snacks, sun hat, bug dope and other needs.
Laptops will be needed for remote sensing work.
We encourage multiple teachers to register from the same school or district!!

Housing at UNH is available for $100 per night, with meals.