

Forest Health Monitoring Program

Monthly Update

July 2018

WHAT'S NEW

The Forest Health Monitoring Program's annual technical report, *Forest Health Monitoring: National Status, Trends and Analysis, 2017* is now published and available [online](#). Please see the full citation in the "Publications of Interest" section of this Update.

Get to know FHM. This month get to know the **aerial survey efforts** of FHM. Aerial detection surveys are used to collect data on insect, disease, and other visually conspicuous disturbances to forests. These data are available online and can be used to evaluate conditions at multiple spatial levels: local, State, and national. Aerial surveys are often a partnership between Federal and State personnel. The U.S. Forest Service's Forest Health Protection Program and the Aerial Survey Working Group, which was an outgrowth of FHM, have assembled national standards for data collection and reporting that allow the data collected across the country to be compatible for analysis. Participation in aerial surveys may take different forms from State to State, with State and Federal personnel sharing responsibility for locating and contracting for appropriate aircraft, making observations, ground checking, and editing and summarizing data. The [Forest Health Assessment & Applied Sciences Team \(FHAASST\)](#) has developed methods and tools for improving aerial survey data collection. Tools will be discussed more next month. Aerial survey data are available [online](#).

UPCOMING EVENTS

(Items beginning with * indicate a new listing or new information)

***August 5-10, 2018.** Mt. Sterling, OH. The 6th International Workshop of the Genetics of Host-Parasite Interactions in Forestry. The workshop is titled *Tree Resistance to Insects & Diseases: Putting Promise into Practice*. The call for abstracts for oral and poster presentations is now open. The due date for abstracts was January 21, 2018. Lodging reservations needed to be made by February 1, 2018. For more information **including the latest draft agenda**, contact the [workshop web site](#). Because the size will be limited to 110 participants, for planning purposes please contact Richard Sniezko (rsniezko@fs.fed.us) or Jennifer Koch (jkoch@fs.fed.us) and specify if you plan to attend, may attend, or will not attend but want to be on the Tree Resistance mailing list.

UPCOMING **WEBINARS**

(Items beginning with * indicate a new listing or new information)

***July 17, 2018 at 12:00 p.m. Mountain Daylight time. Tree Q&A with Extension Forestry Specialist.** (Sponsored by Utah State University Forestry Extension) Speakers: Dr. Mike Kuhns (Utah State University). Attendees of the Learn at Lunch webinars asked, and the organizers listened. Join Extension Forestry Specialist, Mike Kuhns for an hour of tackling some of the attendees' hardest tree-related questions. Every month the organizers poll the Learn at Lunch Webinar audience and ask what future webinars should focus on. Mike will select specific questions to address, as well as take questions from the audience. Drawing on his background in urban and community forestry, landscape tree selection and care, and tree biology, Mike will field questions and find practical solutions to common tree-related problems. A small sample of the issues that Mike will take on include: allowing adequate root space for trees; tree selection (mostly in the arid Intermountain West); planting, root flare; root collar excavation; drought tolerance in trees; effective pruning; and tree appraisal. Join the webinar ready to ask your tree questions! To ensure your question is answered, **email your questions to Mike before the webinar to usuforestryextension@gmail.com**. This interactive, rapid-fire webinar will be full of useful, practical, and timely content that can help improve the health of the trees in your care. CEU available the day of the webinar: Society of American Foresters OR International Society of Arboriculture. To register for this free webinar symposium, visit the [webinar registration site](#). Plan to join the webinar 15 minutes early.

***July 18, 2018 at 1:00 p.m. Eastern Daylight time. NUCFAC [National Urban and Community Forest Advisory Council] Highlights: Growing the Managers of Tomorrow's Sustainable Urban Forests.** (Sponsored by Southern Regional Extension Forestry) Speakers: Lisa Ortega (National Urban and Community Forestry Advisory Council); Cindy Blain (California ReLeaf); and Susan Day (Virginia Tech). The role of urban forests continues to expand as society recognizes the potential contribution of green infrastructure to global sustainability, human health, and quality of life. At the same time, new knowledge and technology are expanding urban forest management options. How will career and employment opportunities develop in this new and challenging environment? Cindy Blain will provide an update on recent work to integrate tree care jobs with urban forest community engagement and the complementary social, economic, and tree literacy benefits – especially in disadvantaged communities, which need tree canopy the most. Susan Day will present project findings from Urban Forestry 2020, a recently concluded research initiative investigating the state of the urban forestry profession. She will also share strategic recommendations relating to professional identity, networking, higher education, and student recruitment. Urban Forestry 2020 was made possible in part by funding from the U.S. Forest Service National Urban and Community Forestry Challenge Cost-Share Grant program. The National Urban and Community Forestry Advisory Council (NUCFAC) sets the categories for this grant program based on the Ten-Year Urban Forestry Action Plan and recommends to the Forest Service innovative urban and

community forestry research and projects that should be considered for funding. Council Member Lisa Ortega will open the webinar with a brief overview of NUCFAC and its national research agenda. Pre-registration is not required! CEU applied for: International Society of Arboriculture – 1.25 hour ISA Certified Arborist Credit; Society of American Foresters - 1 hour Category 1 Credit. Plan to [join the webinar](#) 15 minutes early.

***July 24, 2018 at 1:00 p.m. Eastern Daylight time. Transitioning from Gray to Green Infrastructure Using Urban Forestry.** (Sponsored by Southern Regional Extension Forestry) Speaker: Robert Northrup (Extension Forester, University of Florida IFAS Extension). An introduction to the influence the urban forest has on storm water flows and water quality. Focus will be on the science that extension agents can deliver in cities to affect storm water through specific urban forestry practices. Depleted and degraded water resources are driving communities to look for integrated natural-engineered systems for managing stormwater. Natural and built environments can be reconfigured to restore hydrological and ecological functions, better support the water needs of the community, and help protect the health of people and the environment that sustains them. This program will introduce you to a free decision support tool, supported by the National Urban and Community Forestry Advisory Committee, which guides you through this process. Pre-registration is not required! CEU available: International Society of Arboriculture - 1 hour ISA Certified Arborist Credit. CEU applied for: New York Logger Training - .25 hour NYLT TLC Credit; Society of American Foresters - 1 hour Category 1 Credit. Plan to [join the webinar](#) 15 minutes early.

***July 25, 2018 at 1:00 p.m. Eastern Daylight time. Maintaining Quail and Grassland Bird Habitat in the Agricultural Landscape: CP33 – Habitat Buffers for Upland Birds.** (Sponsored by North Carolina State University Extension Forestry, Southern Regional Extension Forestry, National Bobwhite Conservation Initiative) Speaker: Lisa Potter (Private Land Programs Supervisor, Farm Bill Coordinator, Missouri Department of Conservation). Northern bobwhite quail and many other grassland bird species have experienced significant population declines over the last several decades. Loss of native grassland habitat is one of the primary causes of these declines. The CP33 – Habitat Buffers for Upland Birds is a Continuous Conservation Reserve Program (CRP) practice that provides nesting and brooding habitat for quail and other grassland birds on less productive cropland field margins. The CP33 buffer practice can help maintain important native grassland habitat within an agricultural landscape. This webinar will discuss the CP33 practice requirements, their importance on the landscape and how best to establish, manage and maintain the habitat quality for quail and grassland birds. Pre-registration is not required! CEU available: Society for Range Management - 1 hour SRM Credit; The Wildlife Society - 1 hour TWS Category 1 Credit. CEU applied for: New York Logger Training - .25 hour NYLT TLC Credit; Society of American Foresters - 1 hour Category 1 Credit; Society for Ecological Restoration (SER) - 1 hour SER-CERP Credit. Plan to [join the webinar](#) 15 minutes early.

Past webinars from the Learn at Lunch Live Webinars series sponsored by the Utah State University Forestry Extension are available for viewing at the following [website](http://forestry.usu.edu/videos-conferences-webinars/webinars/index) (<http://forestry.usu.edu/videos-conferences-webinars/webinars/index>).

*Webinars and other information from **The National Academies of Sciences, Engineering and Medicine study, *The Potential for Biotechnology to Address Forest Health***, are posted on the [study web site](#). Visit the web site for more information.

*Webinars and other information about **Citizen Science and the U.S. Forest Service** are posted on the [Citizen Science web site](#). Visit the web site for more information.

*Webinars offered by the U.S Forest Service Geospatial Technology and Applications Center (GTAC) include three varieties. The lightning talks (**Lightning Talk**) are very short presentations that will last approximately 15-30 minutes; they will focus on specific geoprocessing tasks and are designed to provide concise and useful information in a very efficient manner. The Awareness Sessions (**Awareness**) are designed to build your knowledge base on the particular topic and enable you to further explore the technology with realistic expectations. The Technical Training Webcasts (**Technical**) are designed to provide you with the technical skills and tools to complete geospatial tasks. **GIS** listed after presentation type indicates GIS training. **RS** listed after the presentation type indicates remote sensing training. **Note: If you don't have access to the Forest Service Intranet, the registration links will not work. Please email what class you want to take to (geotrainingadmin@fs.fed.us) and they will register you manually.**

- **July 18, 2018 at 10:00 am – 4:00 pm (Mountain Time) [ArcGIS 10.3 – Advanced Editing](#) (**Technical - GIS**)** NEW Course! Participants will learn how to work with the Advanced Editing Toolbar in ArcMap; practice using geodatabase topology to find and fix errors; and automate editing through a vertical integration tool that aligns Forest Service data with existing reference data.
- **July 19, 2018 at 10:00 am – 4:00 pm (Mountain Time) [ArcGIS 10.3 – Geoprocessing](#) (**Technical - GIS**)** Do MORE with your data! The Analysis toolbox puts POWERFUL tools right at your fingertips. This course covers 19 of the 21 tools in the Analysis toolbox found right in ArcMap. Whenever you need to solve a spatial or statistical problem, look to the Analysis toolbox.
- **July 24, 2018 at 10:00 am – 4:00 pm (Mountain Time) [Introduction to ArcGIS Online](#) (**Technical - GIS**) **Forest Service Only**** This course covers how the Forest Service administers ArcGIS Online using roles and privileges, and how we leverage Forest Service data in this WebGIS platform. Participants will learn how to use AGOL to create simple web maps, create and manage groups, create a Story Map Journal web app, and

learn how to work with ArcGIS Collector. Included in the course is an optional lesson on further exploring Story Maps by creating a Tour App.
**Note: This is not an introductory course for ArcGIS Desktop. If you are interested in an introductory training in ArcGIS, please see our ArcGIS 10.3 Quick Start course.

- **July 25, 2018 at 10:00 am – 4:00 pm (Mountain Time) [Survey 123 Form Creation](#) (Technical - GIS) [Forest Service Only](#)** Create survey forms for the Survey123 app using the Survey123 web application and Survey123 Connect. Create simple smart forms with relevant questions and drop down lists. Customize the look of your form. Analyze resulting survey data and create AGOL map. A Forest Service ArcGIS (AGOL) account and Survey123 Connect software are required for this course. Audience: Forest Service employees ready to move their paper and electronic forms into Survey123.
- **July 26, 2018 at 10:00 am – 4:00 pm (Mountain Time) [ArcGIS Pro for ArcMap Users](#) (Technical - GIS) [Forest Service Only](#)** New Course!
USFS organizational account for AGOL and ArcGIS Pro required, see other info for more details This course is designed as a crosswalk between using ArcGIS Desktop and ArcGIS Pro. This course provides a hands on introduction to participants of Pro's new user interface and project management. Participants will walk through common workflows previously performed in ArcMap/Catalog such as navigation, editing, analysis, sharing, symbolizing, creating a layout, geoprocessing, importing maps and data, and querying. ArcGIS Pro is a projects based application. A project contains maps, layouts, layers, tables, tasks, tools, and connections to servers, databases, folders, and styles. Projects can also incorporate content from your organization's Portal or ArcGIS Online accounts.
- **August 7, 2018 at 10:00 am – 4:00 pm (Mountain Time) [ArcGIS 10.3 Working with Tables](#) (Technical - GIS)** Participants will learn how to work with tabular information in ArcGIS. The course covers how to use different commands and functions within tables, query attribute data, and join and relate tables. Suggested Background: The prerequisites for this class are the Quick Start course or basic GIS skills (Participants must be open projects, load data, understand Data Frame and Layer properties, and be able manage GIS data in ArcCatalog).
- **August 8-9, 2018 at 10:00 am – 4:00 pm (Mountain Time) [ArcGIS 10.3 – Quick Start](#) (Technical - GIS)** Participants will learn how to get started using ArcGIS Desktop's primary applications, ArcMap and ArcCatalog. The course covers fundamental GIS concepts and basic functionality to view and manipulate display properties. The hands on exercises teach basic viewing functionality and GIS data types and their properties.
- **August 16, 2018 at 10:00 am – 4:00 pm (Mountain Time) [Introduction to ArcGIS Online](#) (Technical - GIS) [Forest Service Only](#)** This course covers how the Forest Service administers ArcGIS Online using roles and privileges, and how we leverage Forest Service data in this WebGIS platform. Participants will learn how to use AGOL to create simple web maps, create and manage groups, create a Story Map Journal web app, and learn how to work with ArcGIS Collector. Included in the course is an optional lesson on further exploring Story Maps by creating a Tour App.

**Note: This is not an introductory course for ArcGIS Desktop. If you are interested in an introductory training in ArcGIS, please see our ArcGIS 10.3 Quick Start course

- **August 22, 2018 at 10:00 am – 4:00 pm (Mountain Time) ArcGIS Pro for ArcMap Users** [ArcGIS Pro for ArcMap Users](#) (**Technical - GIS**) **Forest Service Only** New Course! **USFS organizational account for AGOL and ArcGIS Pro required, see other info for more details** This course is designed as a crosswalk between using ArcGIS Desktop and ArcGIS Pro. This course provides a hands on introduction to participants of Pro's new user interface and project management. Participants will walk through common workflows previously performed in ArcMap/Catalog such as navigation, editing, analysis, sharing, symbolizing, creating a layout, geoprocessing, importing maps and data, and querying. ArcGIS Pro is a projects based application. A project contains maps, layouts, layers, tables, tasks, tools, and connections to servers, databases, folders, and styles. Projects can also incorporate content from your organization's Portal or ArcGIS Online accounts.
- **August 23, 2018 at 10:00 am – 4:00 pm (Mountain Time) Collector for ArcGIS in the Forest Service** (**Technical - GIS**) **Forest Service Only** This introductory webinar covers GPS data collection using the Collector app on a tablet or smart phone. You'll need a smart phone or tablet, WI-FI for your device to connect to, and a Forest Service ArcGIS Online account for this course. See [course description](#) for more details. *Outside partners are welcome to join the class if certain requirements are met.
- **August 28, 2018 at 10:00 am – 4:00 pm (Mountain Time) Survey 123 Form Creation** (**Technical - GIS**) **Forest Service Only** Create survey forms for the Survey123 app using the Survey123 web application and Survey123 Connect. Create simple smart forms with relevant questions and drop down lists. Customize the look of your form. Analyze resulting survey data and create AGOL map. A Forest Service ArcGIS (AGOL) account and Survey123 Connect software are required for this course. Audience: Forest Service employees ready to move their paper and electronic forms into Survey123.

Job Opportunities

The U.S. Forest Service, Southern Research Station is currently advertising a Research Ecologist or Research Forester position (1 vacancy) to be located at the George W. Andrews Forestry Sciences Laboratory in Auburn, Al. This is a permanent full-time position that works in the Southern Research Station's Research Work Unit "Restoring and Managing Longleaf Pine Ecosystems"; the work unit's research addresses questions concerning relationships among natural disturbances, stand and landscape dynamics, and silviculture. Responsibilities include

- Plan and conduct research on the ecology and silviculture of longleaf pine forest ecosystems in the southern U.S., focusing on the consequences of

silvicultural treatments to achieve desired habitat conditions in managed longleaf pine ecosystems.

- Determine key aspects of the experimental design and will act as an expert in the field of the ecology and silviculture of longleaf pine for the Forest Service's Southern Research Station.
- Maintain a number of existing long-term studies as well as adapting these studies for new purposes as appropriate.
- Design, monitor, and modify overstory and understory treatments with traditional and nontraditional silvicultural cutting methods in accordance with concepts of adaptive management.
- Maintain liaison with researchers, other agencies, non-governmental organizations, forest industry and private forest landowners to disseminate research findings and obtain guidance concerning research that promotes forestry.

For more information about the position, please contact Dr. Don Bragg (U.S. Forest Service) at dbragg@fs.fed.us. This position is open to the public (vacancy number 18-10227088-DP-APL). The open period for this position is **July 09, 2018 to July 19, 2018**. See the full announcement including instructions for applying at the [USAJOBS](https://www.usajobs.gov) website. *USDA is an Equal Employment Opportunity Provider and Employer.*

The U.S. Forest Service, Forest Health Protection, Southern Region, (Region 8) is conducting outreach for a Plant Pathologist position (GS-0434-12). This position will be located in Asheville, North Carolina as a part of the Southern Region's Regional Office Forest Health Protection Staff located in the Asheville Field Office. The Asheville Field Office has primary responsibility for the prevention, detection, evaluation and suppression of insects and diseases on national forests, other federal agency and state and private forest lands in the eastern 7 states of Region 8 as well as Puerto Rico and the Virgin Islands. This Plant Pathologist position serves as the Manager of the Resistance Screening Center located at the Bent Creek Experimental Forest. The position is responsible for providing service to a variety of clients including national forests, other Federal agencies, State forestry organizations, private industry, and colleges and universities located primarily in the Southern Region. The Resistance Screening Center is a facility where plant materials are screened against a variety of plant pathogens to determine resistance. Fusiform rust, pitch canker, Phytophthora root rot, dogwood anthracnose, and brown spot are a few of the pathogens of interest. The facility consists of a glass greenhouse, two plastic greenhouses, a soil/media mixing building, a head house, a laboratory, and administrative offices. The position requires field and laboratory work. Travel will be occasional as some work locations are more than a day's drive from the field office. As a member of the Asheville Field Office staff, the plant pathologist will cooperate and collaborate with other plant pathologists, biological scientists, technicians, and other specialists to produce reports that address forest pathology issues of local, regional and national importance. The work may involve diseases caused by both native and introduced pathogens. This position supervises two full time Biological Science Technicians. PLEASE NOTE: The purpose of this Outreach Notice is to determine the potential applicant pool for this position and to establish the appropriate recruitment method and area of consideration for the advertisement

(e.g., target grade and service-wide, region-wide government-wide, or DEMO). Responses received from this outreach notice will be relied upon to make this determination. If you are interested in this position, please complete the outreach response form, attached to this Update as attachment 1, and return it to William Carothers (U.S. Forest Service) at wcarothers@fs.fed.us by **July 31, 2018**. *USDA is an Equal Employment Opportunity Provider and Employer.*

PUBLICATIONS OF INTEREST

1. **Bontemps, A.; Wright, J.; Sniezko, R.; Savin, D.; Schmitt, J.** 2018. Using historical provenance test data to understand tree responses to a changing climate in sugar pine (*Pinus lambertiana*). In: Schoettle, A.W.; Sniezko, R.A.; Kliejunas, J.T., eds. 2018. Proceedings of the IUFRO joint conference: Genetics of 5-needle pines, rusts of forest trees, and Strobosphere: 2014 15-20, Fort Collins, CO. Proc. RMRS-P-76. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. p. 99.
2. **Eastern Forest Environmental Threat Assessment Center.** 2018. Forest ThreatNet, the Spring 2018 edition of the Eastern Forest Environmental Threat Assessment Center's newsletter. Available online at [The Forest ThreatNet](#).
3. **Liu, N.; S. Wu; Q. Guo; J. Wang; X. Rao; C. Cao; J. Wang; X. Cai; Z. Lin.** 2018. Changes in leaf nitrogen metabolism indicated the degradation of subtropical forest by increased canopy addition of nitrogen. *Ecotoxicology and Environmental Safety*. 160:134-143.
4. **Liu, N.; S. Wu; Q. Guo; J. Wang; C. Cao; J. Wang.** 2018. Leaf nitrogen assimilation and partitioning differs among subtropical forest plants under canopy addition of nitrogen treatment. *Science of the Total Environment*. 637-638:1026-1034.
5. **Potter, K.M., and B.L. Conkling, editors.** 2018. Forest Health Monitoring: National Status, Trends and Analysis, 2017. General Technical Report SRS-233. Asheville, North Carolina: U.S. Department of Agriculture, Forest Service, Southern Research Station. 190 p. Available [online](#). (<https://www.fs.usda.gov/treearch/pubs/56285>)
6. **Riitters, K.; Costanza, J.** 2018. The landscape context of family forests in the United States: Anthropogenic interfaces and forest fragmentation from 2001 to 2011. *Landscape and Urban Planning* (in press). Available [online](#). (<https://doi.org/10.1016/j.landurbplan.2018.04.001>)
7. **Wang, Z.; X. Yuan; D. Wang; Y. Zhang; Z. Zhong; Q. Guo; C. Feng.** 2018. Large herbivores influence plant litter decomposition by altering soil properties and plant quality in a meadow steppe. *Scientific Reports*. 8:9089. DOI:10.1038/s41598-018-26835-1.

FOR MORE
FHM
INFORMATION

Visit the [FHM homepage](#) and the [Forest Health Portal](#)
or access both via the [USDA Forest Service homepage](#)

Attachment 1

Outreach Notices Response Form

Respond to William A. Carothers

(wcarothers@fs.fed.us)

By July 31, 2018

Title of Outreach Position: Plant Pathologist

Series and Grade of Outreach Position: 0434 GS-12

Unit Name of Outreach Notice: Forest Health Protection

Outreach Position Location: Asheville, North Carolina

RESPONDING PERSON:

Name: _____

Current Agency/Region/Forest/District: _____

Current Position Title: _____

Current Series and Grade: _____

E-mail Address: _____

Telephone Number: _____

Brief statement of how you think your experience/education meets the duties and basic qualifications of the outreach position.

