

Forest Health Monitoring Program Monthly Update April 2017

UPCOMING EVENTS

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

***May 1-5, 2017.** Jackson, Wyoming. 67th Western Forest Insect Work Conference. The theme of this year's meeting is "Adapting in a Time of Transitions". Registration is open with early registration open prior to **April 7**. For more information about the meeting including last-minute opportunities to submit presentation titles, see [the meeting web site](#).

June 5-9, 2017. Bangor, Maine. 18th International Boreal Forest Research Association Conference. The theme of the conference is "Our Boreal, Our Future: The Science, Policy and Practice of addressing change. The 18th international conference of the International Boreal Forest Research Association (IBFRA) is being hosted by the USDA Forest Service and the University of Maine in Bangor, Maine. Invited keynote speakers, scientific sessions (oral and poster) and panel discussions will explore new scientific findings and their linkages with policy relating to the addressing change in boreal forests. Designed to engage and inform scientists, resource managers and policy makers, the conference themes will address the current and emerging challenges for the boreal, the role of science in addressing those challenges and the links between science, policy and practice. The first call for abstracts has been issued; the deadline for submission is **January 22, 2017**. Registration will open in early January 2017. For more information about the conference and submitting an abstract, visit the [conference web site](#).

June 19-22, 2017. Edmonton, Alberta, Canada. The 11th North America Forest Ecology Workshop (NAFEW). Hosted by the University of Alberta, the theme will be: *Sustaining Forests from Restoration to Conservation*. There will be a special session on the great North American aspen transect, as well as sessions on resilience, thresholds, forest understory, climate change/disturbance, and modeling complexity, and more! The conference will include one-day in-conference field trips to see both natural and industrial landscapes. Further details and regular updates can be found at the [conference web site](#)

***October 24-26, 2017.** Park City, Utah. 2017 Forest Inventory and Analysis Science Stakeholder Meeting: Doing more with the Core. The US Forest Service, Forest Inventory and Analysis (FIA) Program is pleased to announce the 2017 FIA Science Stakeholder Meeting. The theme of the 13th biennial Science Stakeholder Meeting is Doing More with the Core, emphasizing innovation around how FIA analyzes, augments, and delivers information derived from its central data collection operations. The Symposium brings together international forest scientists, managers, and stakeholders to share insights on a wide variety of topics, including contemporary issues, science policy, mensuration, geospatial products, and inventory methods. The first call for presentations is available. Presentation abstracts are due **May 5, 2017**. For

more information about the meeting including lodging, call for papers, author standards, and manuscript guidelines, visit [the meeting web site](#).

November 15-19, 2017. Albuquerque, New Mexico. The 2017 Society of American Foresters National Convention. For complete information about the convention as it becomes available, visit the [convention web site](#).

UPCOMING **WEBINARS**

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

***Southern Pine Beetle Biology, Ecology, and Management** (Sponsored by Southern Regional Extension Forestry / Forest Health and Invasive Species Program) Speaker: Dr. John Nowak (USDA Forest Service, Southern Pine Beetle Prevention Program Manager). This webinar will cover basic biology, ecology, and management of the southern pine beetle (SPB). While the focus of the webinar will be the southeastern U.S., attention will be given to the recent encroachment of SPB into the northeastern states. No pre-registration is required! CEU approved: Georgia Master Timber Harvester – 1 hour CLE – Environmental Credit; Society of American Foresters – 1 hour Category 1 Credit; Mississippi Professional Logging Manager – 1 hour Category 1 Credit; Texas Pro Logger Program – 1 hour Other Credit. CEU applied for: Texas Department of Agriculture-Pesticide Safety Continuing Ed – 1 hour IPM Credit. This webinar will be conducted at **1:00 p.m. (EDT)** on **April 19, 2017**. To access this free webinar, visit [the webinar information site](#) for more details. Plan to join the webinar 15 minutes early.

***Learn at Lunch Live Webinar: Planting Healthy Air: How Trees can Make Cities More Livable.** (Sponsored by the Utah State University Forestry Extension) Speaker: Rob McDonald (The Nature Conservancy). In this presentation, Rob McDonald will review the results of a global study that reviews the literature on vegetation and human health, and then maps the potential for trees to help more than 200 major cities globally. Urban vegetation already plays a small but important role in reducing particulate matter concentrations and ambient air temperatures, but the majority of cities globally are losing vegetative cover over time, so the ability of nature to ensure healthy air is declining over time precisely when billions more people are moving to cities. Looking at city-level averages, however, obscures the power of nature. Nature will not be the solution for air pollution or climate change, but it can serve as a secondary screen to protect vulnerable populations, with measurable health benefits. We document how targeted tree planting can be a cost-effective strategy for ensuring public health in particular locations, and discuss the characteristics of ideal locations for tree planting. We estimate that for the global cities we studied, trees and other vegetation could provide meaningful health benefits to millions of people. No registration is required! 1 CEU is available from the following organizations: International Society of Arboriculture, and Society of American Foresters. This webinar will be conducted at **12:00 p.m. (MDT)** on **April 25, 2017**. To access this free webinar, visit [the registration website](#) for more details. Plan to access the site a few minutes early.

***Climate Change Considerations When Developing Updated Seed Zones.**

(Sponsored by The Eastern Seed Zone Forum) Speaker: Aurelia Baca (Climate Specialist with the Eastern Forest Threat Assessment Center-hosted USDA Southeast Regional Climate Hub (SERCH). The second of the Eastern Seed Zone Forum's online lecture and discussion hours aimed at providing both information about the creation of seed zones in general and a forum in which professionals, experts, and interested parties discuss the possibility of drafting seed zone guidelines for the eastern United States. No pre-registration is required! CEU applied for: Georgia Master Timber Harvester – 1 hour CLE – Continuing Logger Ed Credit; Society of American Foresters – 1 hour Category 1 Credit. This webinar will be conducted at **11:00 a.m. (EDT) on April 26, 2017**. To access this free webinar, visit [the webinar information site](#) for more details. Plan to join the webinar 15 minutes early.

***2017 Digital Mobile Sketch Mapping (DMSM) Training.** (Offered by The Forest Health Assessment and Applied Sciences Team [FHAAS] and the Geospatial Technology and Applications Center [GTAC]) **This training is intended for aerial surveyors**, regardless of background or prior experience using DMSM. Cross-training between surveyors and desktop tool users is also encouraged. The training is a hands-on, technical, day-and-a-half long training on the Digital Mobile Sketch Mapping (DMSM) system. In addition to giving participants an introduction to the structure and purpose of DMSM, this exercise-driven course will guide you through a project workflow with DMSM. Day 1 of the training will focus on the Android tablet and the DMSM application and will include setup and data collection procedures. Day 2 is a half day, and will focus on the ArcMap Add-In, DMSM Desktop Tools, and teach participants to use these custom editing tools in ArcMap. Contact Nolan Cate (ncate@fs.fed.us) for information about prerequisites for the training. The training will be offered twice (they are both the same training and you are not required to go both, but please register for one):

Offering 1 [Register here](#)*

April 26: Tablet/DMSM app

April 27: Desktop Tools

Offering 2 [Register here](#)*

May 17: Tablet/DMSM app

May 18: Desktop Tools

**(For state-partners and non-FS personnel, you will not be able to access this link, please contact Nolan Cate ncate@fs.fed.us to get registered for the course)*

The Sustainable Forest Roundtable offers periodic webinars. For information about accessing past and future webinars, please visit [the Webinar Portal for Sustainable Forests](#).

***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. **RM** 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 Brenna Schwert (bmschwert@fs.fed.us) directly to make accommodations.**

- [ArcGIS 10.3 Editing in SDE](#) (**Technical - GIS**) In a multiuser editing environment, SDE is used to centrally store data and user edits without duplicating data. Versioning allows you to avoid the creation of redundant data while maintaining data snapshots and alternate views. In this webinar, you learn basic concepts and Forest Service workflows of versioning and techniques used to maintain database performance. This course will provide an overview of ArcGIS SDE geodatabases and discuss different methods of editing in a multi-user / SDE environment. **10:00 am – 4:00 pm (Mountain Time) on April 13, 2017.**
- [ArcGIS 10.3 Cartographic Tools](#) (**Technical - GIS**) Participants will learn how to work with various cartographic related properties in ArcGIS. The course covers how to set Layer and Data Frame properties, work with Layer files, assign classification symbology, work with labeling and annotation, and create a final map product. **10:00 am – 4:00 pm (Mountain Time) on April 18, 2017.**
- [Google Earth Engine Awareness](#) (**Awareness - RM**) Google Earth Engine is a cloud-based geospatial processing platform for executing large-scale environmental data analysis, including detecting deforestation, classifying land cover, viewing elevation data, or downloading imagery. This session includes a brief presentation on Google Earth Engine's structure (the public data catalog, cloud-based computation engine, and two interactive development platforms) and examples of USFS applications of the software. This will be followed by a demonstration in each of the available platforms to access Earth Engine – Explorer and Code Editor. You'll get a brief introduction on how to access data, the kinds of spatial analyses you can execute, and how to export results. **10:00 am – 11:00 am (Mountain Time) on April 19, 2017.**
- [Introduction to ArcGIS Online](#) (**Technical - GIS**) ****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. Participants will learn how to create simple web maps, create and manage groups, create a Story Map Journal web app, and learn how to work with ArcGIS Collector. This course also covers how to administer ArcGIS Online and how roles and privileges relate. Included in the course is an optional lesson on further exploring Story Maps by creating a Tour App. **10:00 am – 4:00 pm (Mountain Time) on April 19, 2017.**
- [ArcGIS 10.3 Editing](#) (**Technical - GIS**) This class demonstrates editing environment in ArcGIS Desktop 10.3. You will be exposed to the new editing environment. The course covers editing attribute data, performing spatial edits, and creating new data (digitizing). The hands on exercises teach basic editing functionality. **10:00 am – 4:00 pm (Mountain Time) on April 20, 2017.**

- [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. Here are some of the topics that are covered. The Analysis toolbox has four toolsets. Extract. Overlay. Proximity. Statistics. Because GIS datasets often contain more data than you need, the Extract tools allow you to select features and attributes in a feature class or table based on a query to create new datasets. New information is discovered when overlaying one set of features with another, identifying spatial relationships between those features. With the Overlay toolset you can overlay multiple feature classes to combine, erase, modify, or update spatial features, resulting in a new feature class. The Proximity toolset contains tools that are used to determine the proximity of features within one or more feature classes or between two feature classes, identifying features that are closest to one another or calculating distances between or around them. And the Statistics toolset performs standard statistical analysis (such as mean, minimum, maximum, and standard deviation) on attribute data as well as tools that calculate area, length, and count statistics for overlapping and neighboring features. **10:00 am – 4:00 pm (Mountain Time) on April 26, 2017.**
- [Compressing Raw Lidar Files Using LASZip](#) (**Lightning Talk - RM**) This 15 minute “Lightning Talk” will walk participants through the process of installing LAStools and using the LASzip tool to perform lossless compression of raw lidar data files (las), which will reduce their size by approximately 75%. This lightning talk assumes that participants have a basic understanding of lidar data. There will be an optional question and answer session immediately after the presentation. Lightning Talks are short demonstration webinars, meant to last 15 minutes. It will begin exactly on top of the hour, so please make sure you have joined the webinar and teleconference a few minutes early to ensure complete participation. **10:00 – 10:30 (Mountain Time) on April 26, 2017.**
- [ArcGIS 10.3 – Data Driven Pages](#) (**Technical - GIS**) Participants will learn how to create and manage multiple map pages using Data Driven Pages within ArcMap. This course covers how to arrange the base map layout needed for Data Driven Pages, how to setup and manage Data Driven Pages, how to use tools within the Data Driven Pages Toolset within ArcToolbox, and how to export map pages in various formats. Included in the course is an optional lesson on how to create a map book product using a Python script. **10:00 am – 4:00 pm (Mountain Time) on April 27, 2017.**
- [Overview of Lidar Technology and FUSION Software](#) (**Awareness - RM**) The objective of this introductory workshop is to provide participants with an overview of lidar technology and FUSION software. **10:00 am – 12:00 pm (Mountain Time) on May 3, 2017.**
- [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. **10:00 am – 4:00 pm (Mountain Time) on May 9-10, 2017**
- [ArcGIS 10.3 Geodatabases](#) (**Technical - GIS**) Participants will learn how to create a File Geodatabase, and import existing data, how to create attribute

domains, and edit table-attribute values that are linked to those domains; and how to create Topologies. These topologies will be used to verify the vertical integration of spatially coincident feature classes. **10:00 am – 4:00 pm (Mountain Time) on May 11, 2017.**

PUBLICATIONS **OF INTEREST**

1. **Agne, Michelle C.; Woolley, Travis; Fitzgerald, Stephen.** 2016. Fire severity and cumulative disturbance effects in the post-mountain pine beetle lodgepole pine forests of the Pole Creek fire. *Forest Ecology and Management*. 366: 73-86.
2. **Argyropoulos, Michelle; Clark, Josh; Dozic, Aleksander [and others].** 2016. [Forest health highlights in Washington – 2016](#). Portland, OR: U.S. Department of Agriculture Forest Service, Pacific Northwest Region. 40 p. Available online:
https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd536046.pdf or click on the title above.
3. **Buhl, Christine;** Kanaskie, Alan; Navarro, Sarah [and others]. 2017. [Forest health highlights in Oregon – 2016](#) Salem, OR: Oregon Department of Forestry, and Portland, OR: U.S. Department of Agriculture Forest Health Protection. 34 p. Available online:
https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd536045.pdf or click on the title above. A limited supply of printed copies are available. Please contact Karen Ripley, klripley@fs.fed.us 503 808-2674 to request one.
4. **Ciesla, William M.** 2016. [Protecting the health of America's forests: a case for strong interagency partnerships](#). *In: The Newsletter of the National Museum of Forest Service History*. Volume 28, Number 3. Available online soon: <https://www.forestservicemuseum.org/newsletters/> or click on the title above.
5. **Dubois, Garret; Wurtz, Tricia, eds.** 2016. [Forest health conditions in Alaska – 2016](#). FHP Protection Report R10-PR-39. Anchorage, AK: U.S. Department of Agriculture Forest Service, Alaska Region. 74 p. Available online:
https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd533099.pdf or click on the title above.
A shorter [Highlights from 2016](#) document is available online:
https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd533100.pdf or click on the title above
6. **Siegert, Nathan W.; McCullough, Deborah G.; Poland, Therese M.; Heyd, Robert L.** 2017. Optimizing use of girdled ash trees for management

of low-density emerald ash borer (Coleoptera: Buprestidae) populations.
Journal of Economic Entomology. 2017 tox092. [doi: 10.1093/jee/tox092](https://doi.org/10.1093/jee/tox092)

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or access both via the [USDA Forest Service homepage](#)