

Forest Health Monitoring Program

Monthly Update

December 2017

UPCOMING EVENTS

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

***January 29-30, 2018.** Staunton, VA. Virginia Association of Forest Health Professionals Conference (VAFHP). The mission of the VAFHP is to create a forum for the open exchange of information and ideas between urban and rural forest health professionals so that we can better prepare for emerging threats, manage forests more effectively and sustainably, and continue to expand our ability to preserve the balance of forests with the developed and natural ecosystems. The meeting offers a well-rounded agenda providing up-to-date information about established and emerging plant, insect, and disease pests. The 2018 conference topics include an American chestnut update, the status of hemlock woolly adelgid, urban tree canopy, southern pine beetle, bats and white nose syndrome, hazardous trees, ticks and fire management, bamboo management, and more. Pesticide recertification credits and ISA/SAF continuing education credits will be offered. Registration is now open. For more information, please visit the [conference website](#) or contact Lori Chamberlin (VA Department of Forestry) at lori.chamberlin@dof.virginia.gov or 434-330-9026.

February 6-9, 2018. Athens, GA. Workshop on the USDA – AFRI – White Pine Health in Eastern Timberlands (WHIET). The goal is to form a cohesive team of personnel from diverse backgrounds, fields, agencies, and regions who are directly involved in studying and managing various aspects of abiotic and biotic stressors affecting white pine resilience and integrity. We want to synthesize current state-of-the-art knowledge about the eastern white pine health in addition to research and extension directions for prevention, protection, and amelioration of these forest health issues. A program advisor board will soon put together speakers for the sessions. Please contact Kamal Gandhi (kgandhi@warnell.uga.edu) or William Livingston (WilliamL@maine.edu) if you would like to give a presentation. More information about the workshop will be available soon. If you have questions, please contact Kamal Gandhi (kgandhi@warnell.uga.edu) or William Livingston (WilliamL@maine.edu).

February 13– 15, 2018. Phoenix, AZ. The National Forest Health Monitoring (FHM) Workshop. This Working Group Meeting will be held at the Bureau of Land Management National Training Center. As part of the effort to re-vitalize the Forest Health Monitoring Program, the 2018 National Forest Health Monitoring Workshop has been announced for mid-February. This will be a working meeting with no registration fees and will draw State and Federal cooperators together to determine the future direction of the FHM Program. The main objectives are to report on forest health conditions and trends; present recent advances in forest health monitoring; and

use participant focus groups to develop recommendations for improving the FHM program. Sessions are planned that cover monitoring techniques, data analyses, and technological advances in forest health monitoring. Special efforts have been made to make this gathering as budget-minded as possible. Forest Health Monitoring funding is provided to FHM participants to support their attendance at this meeting. Please save the date now; lodging and travel materials will be available soon. For further information, please contact FHM National Program Manager, Tom Eager at teager@fs.fed.us or 202-572-0387

***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 is **January 21, 2018**. Lodging reservations need to be made by **January 30, 2018**. For more information 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. Sending this email is not a commitment to attend the meeting.

UPCOMING **WEBINARS**

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

***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>).

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

- **January 4, 2018 at 10:00 am – 4:00 pm (Mountain Time) [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.
- **January 9, 2018 at 10:00 am – 4:00 pm (Mountain Time) [Collector for ArcGIS in the Forest Service](#) (Technical - GIS) [Forest Service Only](#)** Collector is a map-based GPS data collection app for tablet or smart phone. This webinar has a wide target audience and covers GPS data collection using the Collector app. An optional lesson on GIS data and map configuration is included. Students will need a USFS AGOL account, WIFI, and a mobile device. The topics covered are: * Collect GPS data including points, lines, and areas. * Attach photos. * Update existing points. * Sync and review data. * Download map to device. * OPTIONAL Lesson: Set up hosted editable features and ArcGIS Online map for offline use using AGOL and ArcMap. Note: This workflow covers hosting features on the ESRI cloud, and DOES NOT cover the ArcGIS Server / SDE workflow.
- **January 9, 2018 at 10:00 am – 12:00 pm (Mountain Time) [Introduction to Forest Service Geospatial Resources](#) (Awareness - GIS) [Forest Service Only](#)** This course is for people who are new to the Forest Service or new to GIS and need to learn about the geospatial data, protocols, and platforms available in the Forest Service. PLEASE NOTE: This course will not teach you how to use specific GIS software. If you are new to GIS, we recommend you take the GSTC ArcGIS 10.3 Quick Start class, or the Introduction to ArcGIS Online course.
- **January 10-11, 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.
- **January 16, 2018 at 10:00 am – 4:00 pm (Mountain Time) [Collector for ArcGIS in the Forest Service](#) (Technical - GIS) [Forest Service Only](#)** Collector is a map-based GPS data collection app for tablet or smart phone. This webinar has a wide target audience and covers GPS data collection using the Collector app. An optional lesson on GIS data and map configuration is included. Students will need a USFS AGOL account, WIFI, and a mobile device. The topics covered are: * Collect GPS data including points, lines, and areas. * Attach photos. * Update existing points. * Sync and review data. * Download map to device. * OPTIONAL Lesson: Set up hosted editable features and ArcGIS Online map for offline use using AGOL and ArcMap. Note: This workflow covers hosting features on the ESRI cloud, and DOES NOT cover the ArcGIS Server / SDE workflow.
- **January 17, 2018 at 10:00 am – 4:00 pm (Mountain Time) [ArcGIS 10.3 – Editing](#) (Technical - GIS)** This class demonstrates editing environment

in ArcGIS Desktop 10.2. 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.

- **January 18, 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).
- **January 18, 2018 at 10:00 am – 4:00 pm (Mountain Time)** [ArcGIS 10.3 – Editing in SDE](#) (**Technical – GIS**) **Forest Service Only** 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.
- **January 18, 2018 at 10:00 am – 4:00 pm (Mountain Time)** [Introduction to Geospatial Scripting](#) (**Technical - RS**) Geospatial scripting allows you to write scripts for quick processing of lots of data. These scripts also have the advantages of being reusable and providing automatic documentation for your projects. Introduction to Geospatial Scripting is a 1 day technical webinar designed to present basic concepts of scripting to new users. No previous programming experience is required. This course allows users to choose between one of three scripting languages, JavaScript, Python, or R. Participants will be walked through simple scripts, learning some syntax and vocabulary of their language of choice before writing a geospatial script to learn some useful applications.
- **January 23, 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.
- **January 24, 2018 at 10:00 am – 4:00 pm (Mountain Time)** [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.
- **January 24, 2018 at 10:00 am – 4:00 pm (Mountain Time)** [TEUI Toolkit 5.4 Release: Overview and Demo](#) (**Awareness - RS**) The USFS

Geospatial Technology Applications Center (GTAC) is pleased to announce the latest release of the TEUI Geospatial Toolkit, version 5.4. The latest release adds additional statistical support to the graphing engine, new Tools, and bug fixes. The Terrestrial Ecological Unit Inventory Geospatial Toolkit (TEUI Toolkit) is an ArcGIS Add-In that assists users in mapping and analyzing landscapes using geospatial data. The Toolkit was designed to accelerate the TEUI mapping process but can also be used for a variety of other natural resource mapping efforts.

- **January 24, 2018 at 10:00 am – 4:00 pm (Mountain Time) [Collector for ArcGIS in the Forest Service](#) (Technical - GIS) [Forest Service Only](#)** Collector is a map-based GPS data collection app for tablet or smart phone. This webinar has a wide target audience and covers GPS data collection using the Collector app. An optional lesson on GIS data and map configuration is included. Students will need a USFS AGOL account, WIFI, and a mobile device. The topics covered are: * Collect GPS data including points, lines, and areas. * Attach photos. * Update existing points. * Sync and review data. * Download map to device. * OPTIONAL Lesson: Set up hosted editable features and ArcGIS Online map for offline use using AGOL and ArcMap. Note: This workflow covers hosting features on the ESRI cloud, and DOES NOT cover the ArcGIS Server / SDE workflow.
- **January 25, 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.
- **January 25, 2018 at 10:00 am – 4:00 pm (Mountain Time) [Integrating Digital 3D Imagery into Your Geospatial Workflows](#) (Technical - RS)** This course will introduce the basic characteristics of photos that allow for stereo viewing, and demonstrate how to use digital 3D imagery in USFS corporate software (Summit Evolution and ArcMap 10.2 or later) for estimating tree heights and digitizing features with elevation information.
- **January 30, 2018 at 10:00 am – 4:00 pm (Mountain Time) [ArcGIS 10.3 Thematic Data 1 – Development and Classification](#) (Technical - GIS)** Learn the fundamentals of raster data and imagery including data extraction and exploration techniques and how to perform image classification using the ArcGIS Spatial Analyst extension and the Image Classification toolbar. Students will become familiar with - remote sensing principles such as: Raster types, their resolutions and essential properties; Concepts of multi band imagery including the display and interpretation of Landsat 7 & Landsat 8 Imagery; Data extraction and exploration techniques such as classifications and reclassifications to create valuable thematic datasets for use in project analysis.
- **January 30, 2018 at 10:00 am – 4:00 pm (Mountain Time) [Collector for ArcGIS in the Forest Service](#) (Technical - GIS) [Forest Service Only](#)** Collector is a map-based GPS data collection app for tablet or smart phone. This webinar has a wide target audience and covers GPS data collection using the Collector app. An optional lesson on GIS data and map configuration is included. Students will need a USFS AGOL account, WIFI, and a mobile device. The topics covered are: * Collect GPS data

including points, lines, and areas. * Attach photos. * Update existing points. * Sync and review data. * Download map to device. * OPTIONAL Lesson: Set up hosted editable features and ArcGIS Online map for offline use using AGOL and ArcMap. Note: This workflow covers hosting features on the ESRI cloud, and DOES NOT cover the ArcGIS Server / SDE workflow.

- **January 31, 2018 at 10:00 am – 4:00 pm (Mountain Time) [ArcGIS 10.3 Thematic Data II – Analysis and Modeling](#) (Technical - GIS)**

Participants will learn how to use GIS data to analyze a vegetation project proposal and prepare information for a NEPA analysis. Students will use the Forest Service Data Center and Citrix programs that allow for inter-discipline collaboration, and provides a central repository for all the project data. This course covers the process of finding, creating, managing, and analyzing GIS data in order to prepare outputs for NEPA specialist reports.

PUBLICATIONS OF INTEREST

1. **Liebhold, Andrew M.; Brockerhoff, Eckehard G.; Nuñez, Martin A.** 2017. Special issue on biological invasions in forests prepared by a task force of the International Union of Forest Research Organizations (IUFRO). *Biological Invasions*. 19 (11): 3073-3459.

FOR MORE FHM INFORMATION

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