

Forest Health Monitoring Program Monthly Update January 2020

WHAT'S NEW

Get to know FHM. This month, get to know the Forest Health Monitoring national status and trends report. Each year the FHM program produces a national status and trends report. Each report has three objectives. The first objective is to present forest health information from a national or multi-State perspective using Forest Health Protection (FHP) data, Forest Inventory and Analysis (FIA) data, and other applicable data available. The second objective is to present new techniques for analyzing forest health data, and new applications of established techniques from natural resources or other disciplines. The third objective is to present summaries of recently completed evaluation monitoring projects. Several chapters in each report present analyses that are updated each year and written by staff from the Forest Health Team of the Eastern Forest Environmental Threat Assessment Center. Other chapters are often written by other Federal and State members of the FHM community. If you have an idea for a chapter, please contact Kevin Potter (North Carolina State University) at kpotter@ncsu.edu. Past FHM national status and trends reports are available online via the [FHM web site](#).

UPCOMING EVENTS

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

***February 25-27, 2020.** Raleigh, North Carolina. **The National Forest Health Monitoring (FHM) Workshop.** To be held at the Nature Research Center at the North Carolina Museum of Natural Sciences in downtown Raleigh, NC. This will be a working meeting that will draw State and Federal cooperators together to discuss forest health issues and make recommendations about the future direction of the FHM Program. The focus of the workshop will be on integrating State, academic, and Federal partners in the FHM Program. The official invitation letter, which includes the [lodging](#) and [other travel information](#), and the draft agenda are now available on the [workshop webpage](#). Please check the site periodically for updated information. You may also contact Chris Asaro (FHM South Regional Program Manager) at christopher.asaro@usda.gov or 404-347-2718 with questions.

UPCOMING WEBINARS

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

*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.

***January 14, 2020 at 12:00 p.m. Mountain time. Soil Management for Urban Trees.** (Sponsored by Utah State University Forestry Extension and the TREE Fund) Speaker: Bryant Scharenbroch (Assistant Professor of Soil Science, University of Wisconsin, Stevens Point, Research Fellow Morton Arboretum). The goal of the webinar is to provide an overview of soil management for urban trees. Specific emphasis will be given to soil assessment. The webinar will introduce soil quality, cover how soil quality can be assessed, and discuss how soil quality assessment can be used for urban tree management. The webinar will include findings from research that has been funded by the TREE fund. The webinar will also include examples of how this information may be applied to real world situations for the arborist and urban forester. Pre-registration is not required! For CEU information, see the link on the registration page. Plan to [join the webinar](#) 15 minutes early.

***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. The courses are also divided into five categories. The categories are indicated after each web link in the list below as follows: **GIS-Desktop; GIS-Web; GIS-Mobile; Remote Sensing; and Data management.**

All class registrations can be accessed via the [CATALOG WEBPAGE](#).

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 (SM.FS.geotraining@usda.gov) and they will register you manually.

- **January 8, 2020 at 10:00am – 10:30am (Mountain Time). Existing Vegetation Classification, Mapping, and Inventory Technical Guide (EVTG) Modules (**Awareness** - Remote Sensing).**
- **January 9, 2020 at 10:00am – 4:00pm (Mountain Time). Introduction to ArcGIS Online (**Technical** - GIS-Web) **Forest Service Only**** This course covers the basics of using ArcGIS Online (AGOL). Students will learn how to make a map in AGOL, how to work in groups, what roles are, and then how to take a map offline to use in a mobile app like collector. Finally we will create a web app to view our completed map. The objectives of this course are to understand the role of ArcGIS Online as a component of the US Forest Service's implementation of web-based services; and to gain an understanding of the administration of ArcGIS Online, publishing of map services, and the process to create web maps and web applications that we can share with others. ****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 14, 2020 at 10:00am – 4:00pm (Mountain Time). ArcGIS 10.5 – Editing (**Technical** - GIS-Desktop)** This class demonstrates editing environment in ArcMap. 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. The objective of the course is for students to be able to edit values from the table window, edit values outside of an edit session, edit values from the attributes dialog window, create a frequency table, prepare the edit environment, point edits, line edits, polygon edits, use map topology, create a geodatabase, create a feature class, populate a feature class with records derived from digitizing, create and populate user defined attribute fields for a feature class, and populate them with the calculate geometry function.
- **January 14, 2020 at 10:00am – 4:00pm (Mountain Time). Survey123 Form Creation, an Introduction (**Technical** - GIS-Mobile) **Forest Service Only**.** What is Survey123? Part of the ESRI Geospatial Cloud, Survey123 for ArcGIS is a complete, form-centric solution for creating, sharing, and analyzing surveys. Use it to create smart forms with skip logic, defaults, and support for multiple languages. Collect data via web or mobile devices, even when disconnected from the Internet. Analyze results quickly, and upload data securely for further analysis. This webinar introduces the Survey123 App and the tools used to create forms. Come explore this data collection workflow and see if it is the right tool for your project. The objective of this course is to build and publish survey forms for use in the Survey123 field app. The Survey123 website and Survey 123 Connect for desktop will be used to create simple smart forms with drop down lists.
- **January 15, 2020 at 10:00am – 4:00pm (Mountain Time). ArcGIS 10.5 – Editing in SDE (**Technical** - GIS-Mobile) **Forest Service Only**** In a multi-user 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 alternative views. In this webinar, you learn basic concepts and Forest Service workflows of versioning and techniques 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 15, 2020 at 10:00am – 4:00pm (Mountain Time). Advanced eCognition (Technical - Remote Sensing). Forest Service Only**
- **January 16, 2020 at 10:00am – 4:00pm (Mountain Time). ArcGIS 10.5 – Advanced Editing (Technical - GIS-Desktop)** 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. The objective of this course is to learn to use the specified tools available within ArcMap to more efficiently and accurately edit GIS data.
- **January 21, 2020 at 10:00am – 4:00pm (Mountain Time). Intermediate ArcGIS Online (Technical - GIS-Web) Forest Service Only **US Forest Service organizational account for AGOL required, see other information listed in catalog for more details** A general understanding of ArcGIS Online (AGOL) and ArcMap is assumed for this course. This course will look at some of the more advanced options available in AGOL. A closer look at map and feature services will be explored. An examination and exploration of the Living Atlas will be conducted. Lastly, an overview of the analysis tools and geocoding will be covered. The objective of this course is to expose users to the breadth of AGOL and improve their skill set to utilize AGOL as an additional GIS tool.**
- **January 22, 2020 at 10:00am – 4:00pm (Mountain Time). ArcGIS 10.5 – Geoprocessing (Technical - GIS-Desktop)** 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. The Analysis toolbox has four toolsets: Extract, Overlay, Proximity, and Statistics. In this course you will perform overlays, create buffers, calculate statistics, perform proximity analysis, and much more.
- **January 23, 2020 at 10:00am – 4:00pm (Mountain Time). ArcGIS Pro for ArcMap Users (Technical - GIS-Desktop) Forest Service Only **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 platform. Participants will walk through common workflows previously performed in ArcMap/Catalog such as navigation, editing, analysis, sharing, symbolizing, creating a layout, geoprocessing, querying and importing maps and data. The objective is to expose participants to the ArcGIS Pro user interface and assist in the transfer of common workflows from ArcMap to ArcGIS Pro.**

- **January 23, 2020 at 10:00am – 4:00pm (Mountain Time). Geospatial Scripting in Python (Technical - Remote Sensing).**
- **January 28, 2020 at 10:00am – 4:00pm (Mountain Time). ArcGIS 10.5 – Spatial Analyst (Technical - GIS-Desktop)** ArcGIS Spatial Analyst provides a broad range of powerful spatial modeling and analysis capabilities. You can create, query, map, and analyze cell-based raster data; perform integrated raster/vector analysis; derive new information from existing data; query information across multiple data layers; and fully integrate cell-based raster data with traditional vector data sources.
- **January 28, 2020 at 10:00am – 4:00pm (Mountain Time). Fundamentals of Image Interpretation (Technical - Remote Sensing).**
- **January 28, 2020 at 10:00am – 12:00 pm (Mountain Time). Forest Service Geospatial Resources (Awareness – Data Management) Forest Service Only** This class is a broad overview of the GIS resources available in the Forest Service. It is not a class on how to use specific software. The objective is to help people new to GIS in the Forest Service learn about the platforms, data, and procedures available so they may become efficient, effective, and productive GIS users as quickly as possible.
- **January 29, 2020 at 10:00am – 4:00pm (Mountain Time). ArcGIS 10.5 – Thematic Data 1: Development and Classification. (Technical - GIS-Desktop)** 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.
- **January 29, 2020 at 10:00am – 4:00pm (Mountain Time). Collector for ArcGIS in the Forest Service (Technical - GIS-Mobile) Forest Service Only** This introductory webinar covers GPS data collection using the Collector app on a tablet or cell phone. The GIS data and online map setup for Collector are also introduced.
- **January 30, 2020 at 10:00am – 12:00 pm (Mountain Time). Obtaining Remotely Sensed Imagery (Awareness - Remote Sensing).**
- **January 30, 2020 at 12:30pm – 3:00 pm (Mountain Time). Overview of Remote Sensing (Awareness - Remote Sensing).**
- **January 31, 2020 at 10:00am – 4:00pm (Mountain Time). ArcGIS 10.5 – Thematic Data 2: Analysis and Modeling (Technical - GIS-Desktop)** This course provides an in-depth look at the world of spatial modeling. You will gain an insight on data preparation techniques to complete various spatial modeling scenarios that will increase your understanding of ArcGIS ModelBuilder and various spatial modeling theories.
- **February 4, 2020 at 10:00am – 4:00pm (Mountain Time). ArcGIS 10.5 – Geodatabases (Technical - GIS-Desktop)** 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.
- **February 4, 2020 at 10:00am – 10:30am (Mountain Time). LAS Dataset Toolbar (Lightning Talk – Remote Sensing).**

- **February 4 -5 2020 at 10:00am – 4:00pm (Mountain Time). ArcGIS 10.5 – QuickStart (Technical - GIS-Desktop)** 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.

Job Opportunities

The U.S. Forest Service, Northeastern Area, State and Private Forestry anticipates filling a permanent, full-time (GS-0434-11/12) Forest Pathologist (PLANT PATH) position. The position is located at the Durham Field Office in Durham, NH. If you are interested in this position please respond, because the responses to this outreach notice will help managers decide how to advertise this position. The vacancy announcement will be posted on [USAJobs \(www.usajobs.gov\)](http://USAJobs.gov). Interested individuals should respond to this outreach and will be contacted with specific vacancy announcement information when the job is advertised. This individual in this position will serve as a member of a group of entomologists, pathologists, foresters, biologists, and a botanist that reports to the Forest Health Group Leader. This position will focus on forest pathology in northeastern North America, including the following duties:

- Coordinates and implements all aspects of a complex major forest pathogen detection, evaluation, prevention, and control program
- Exercises scientific judgment to conceive and conduct special evaluations to gain additional specific knowledge concerning disease biology.
- Provides site-specific, technical assistance concerning forest diseases to land managers
- Organizes, plans, and conducts forest pathology related training programs, presentations, or seminars.

To express interest in this position please respond either directly through the [Forest Service Employment Outreach System](#) or Contact Michael Bohne, michael.bohne@usda.gov; 603-868-7708 by **January 31, 2020**. When this job is announced the vacancy announcement for this position will be posted on the U.S. Government's official website for employment opportunities at [USAJobs](http://USAJobs.gov). Once the announcement is posted, all who responded to the outreach notice will be contacted by email to let you know the vacancy announcement number so individuals who are interested in this position can submit their applications. *USDA is an equal opportunity provider and employer.*

The Arizona Department of Forestry and Fire Management is currently advertising the position of Forest Health Specialist (Natural Resources Manager I – Forest Health). This full-time position is a key component of the Cooperative Forestry Team and will be responsible for implementation of a comprehensive and robust statewide forest health program. Successful accomplishment of listed duties will require statewide travel. Major position emphasis will be in forest

health, though the incumbent may also work in other general grant-funded forestry related functions including: urban forestry, invasive species management, public outreach, forest inventory, forest land management plan assistance, forest stewardship, geographical information systems mapping, and fuels mitigation. Duties will include:

- Provide forest health technical assistance and outreach to community groups, local governments, landowners, related businesses, and Native American tribal organizations statewide. Respond to requests for technical assistance from state and private landowners and managers (urban and non-urban).
- Oversee and participate in all aspects of cost assistance projects, which may include field forestry work, remote sensing, data collection, data reporting, and tracking accomplishments of specific grant projects. Manage Western Bark Beetle Initiative grant projects.
- Lead agency efforts in completing annual aerial detection surveys for insects and pathogens in Arizona forests. Participate in flight surveys, data collection and synthesis, and annual report compilation.
- Maintain project records and financial documents; prepare needed paperwork for assigned projects. Compile accomplishment reports and other publications as necessary.
- Along with the Forest Health Program Manager and DFFM staff, lead the creation of a Forest Health Strategic Plan to guide the program over the next 5 years.
- Assist with urban interface forestry management planning, including forest health and maintenance (disease prevention).

For a description of specific duties; knowledge, skills, and abilities qualifications; and instructions about how to apply, see the [position description](https://azstatejobs.azdoa.gov/ltnprod/xmlhttp/shorturl.do?key=3A4S) (<https://azstatejobs.azdoa.gov/ltnprod/xmlhttp/shorturl.do?key=3A4S>). The closing date is **01/16/2020**. *Persons with a disability may request a reasonable accommodation such as a sign language interpreter or an alternative format by contacting 602-542-4490. Requests should be made as early as possible to allow time to arrange the accommodation. Arizona State Government is an AA/EOE/ADA Reasonable Accommodation Employer.*

PUBLICATIONS OF INTEREST

1. **Special issue on Resistance in Trees (to pathogens and pests)**. 2020. The contents of this issue are an output from the 2018 Tree Resistance Workshop held August 5-10, 2018 in Mt. Sterling, Ohio, USA. *Plants, People, Planet*. Vol 2, Issue 1. Available [online](https://nph.onlinelibrary.wiley.com/toc/25722611/2020/2/1). (<https://nph.onlinelibrary.wiley.com/toc/25722611/2020/2/1>)

FOR MORE
FHM
INFORMATION

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