Forest Health Monitoring Program
Monthly Update
February 2020

WHAT'S NEW

Get to know FHM. This month, get to know the **Forest Health Monitoring (FHM) Program of the Forest Service, U.S. Department of Agriculture**. FHM is a Forest Service – State partnership that collects and analyzes information from many sources to assess status and trends of forest health indicators. FHM's three main objectives are (1) identify forest ecosystems where conditions might be deteriorating in subtle ways over large areas; (2) verify and define the extent of deterioration in forest ecosystems where potential problems are identified; and (3) understand the processes that cause forest health problems so strategies can be developed for problem mitigation and prevention (Bechtold and others 2012). Each month, watch for specific information about getting to know the FHM program components, partners and cooperators, forest health data and reporting, and analysis tools. In 2020, get to know FHM!

The USDA Forest Service Southwestern Region, the Arizona Department of Forestry and Fire Management, and New Mexico State Forestry have produced a new story map titled Forest Health Summary for the Southwestern Region 2019. The story map includes maps and descriptive information about tree mortality, tree defoliation, methodology, and contacts for more information about conditions in Arizona and New Mexico. Check out this interesting and interactive source of information!

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**. Poster submission information, especially for Evaluation Monitoring projects, is also on the 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.

***March 4, 2020 at 1:00 p.m. Eastern time. Crapemyrtle Bark Scale: Biology, Monitoring, and Management.** (Sponsored by Southern Regional Extension Forestry) Speaker: Dr. Erfan K. Vafaie (Extension Program Specialist II, Texas A&M AgriLife Research and Extension Center) This webinar will provide a general overview of the introduction, range, impact and possible management strategies for crapemyrtle bark scale. Crapemyrtle bark scale is a relatively new invasive sucking insect pest, first officially reported on crape myrtles just north of Dallas, TX in 2004. Since then, crapemyrtle bark scale has spread to13 states throughout the southeastern U.S. and has been found on additional host plants. Crapemyrtle bark scale infestations are characterized by white or gray waxy secretions on stems, large twigs and trunks, but rarely on foliage. Infestations do not usually kill the plants, but reduce plant vigor and cause aesthetic damage. Because scales produce honeydew, black sooty mold is often associated with heavy infestations as well. Management includes mechanical, chemical and biological control options. Pre-registration is not required! CEU available: Certificate of Participation. CEU applied for: Georgia master Timber Harvester – Continuing Logger Ed. (GaMTH CLE) – 1 hour CLE-MTH Category B Credit; New York Logger Training – Trained Logger Certification (NYLT-TLC) - .25 hour NYLT TLC credit. Plan to **join the webinar** 15 minutes early.

***March 11, 2020 at 12:00 p.m. Eastern time. Management and Economic Considerations for Mixed Stand Management.** (Sponsored by USDA Forest Service and Mississippi State University) Speakers: Shaun Tanger (Assistant Professor, Department of Forestry Coastal Research and Extension Center, Mississippi State University) and Dr. Michael Blazier (Professor, Forestry Research Project Leader, LSU AgCenter Hill Farm Research Station, Louisiana State University) The 2nd webinar in this series discusses preliminary results from a research study in Louisiana that combines Pine-Hardwood mixes in plantations. We also provide a caution for landowners considering adopting mixed stand strategies in the southeast. Pre-registration is not required! CEU available: Georgia master Timber Harvester – Continuing Logger Ed. (GaMTH CLE) – 1 hour CLE-MTH Category B Credit; Texas Dept of Ag - Pesticide Safety Continuing Ed (PSE) - 0 hour NA Credit. CEU applied for: New York Logger Training – Trained Logger Certification (NYLT-TLC) - .25 hour NYLT TLC credit; Society of American Foresters - Certified Forester Education (SAF-CFE) - 1 hour Category 1 Credit. 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.

- **February 13, 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.
- **February 19, 2020 at 10:00am – 11:30 am (Mountain Time). Landscape Pattern Monitoring Portal (Awareness - Remote Sensing).**
- **February 19, 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.

- **February 19-20, 2020 at 10:00am – 4:00pm (Mountain Time). ArcGIS 10.5 – Managing SDE Databases (Technical - GIS-Desktop) Forest Service Only.**
- **February 25, 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.
- **February 25, 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.
- **February 26, 2020 at 10:00am – 10:30 pm (Mountain Time). Image Analysis Window (Lightning Talk - Remote Sensing).**
- **February 26, 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.
- **February 27, 2020 at 10:00am – 4:00 pm (Mountain Time). Lidar in ArcGIS Pro (Technical - Remote Sensing).**
- **February 27, 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.

- **March 3-4, 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
- **March 4, 2020 at 10:00am – 12:00 pm (Mountain Time). Overview of Lidar Technology and FUSION Software (Awareness - Remote Sensing).**
- **March 11, 2020 at 10:00am – 4:00pm (Mountain Time). Introduction to eCognition (Technical – Remote Sensing) Forest Service Only.**
- **March 11, 2020 at 10:00am – 4:00pm (Mountain Time). Introduction to ArcGIS Online (Technical - GIS-Web) Forest Service**

PUBLICATIONS OF INTEREST

1. **Howell, R.G.; Petersen, S.L.; Balzotti, C.S.; Rogers, P.C.; Jackson, M.W.; Hedrich, A.E.** 2019. Using WebGIS to develop a spatial bibliography for organizing, mapping, and disseminating research information: A case study of quaking aspen. Rangelands. 41(6): 244-247. Available online. (https://doi.org/10.1016/j.rala.2019.10.001.)

FOR MORE FHM INFORMATION

Visit the FHM homepage and Forest Health Assessment and Applied Sciences or access both via the **USDA Forest Service homepage**