

Forest Health Monitoring Program Monthly Update August 2018

WHAT'S NEW

Get to know FHM. This month get to know some **online tools available** to assist with forest health assessment. The [Forest Health Assessment & Applied Sciences Team \(FHAAST\)](#) has developed a variety of tools for analyzing forest health data and assessing forest health conditions. Two area of interest that have online tools are mapping and reporting, and forest vegetation simulator models. Mapping and reporting tools are available for GIS and spatial analysis, invasive species risk assessment, and remote sensing and image analysis. [GIS and spatial analysis](#) tools include use of the insect and disease database (including aerial survey), applications for use in data management and analysis (data and application development), and risk and hazard mapping (includes national insect and disease risk maps and national forest damage agent range maps). [Invasive species risk assessment](#) products include pest reports, introduction, establishment, susceptibility, risk assessments, hazard maps, and sample design tools. [Remote sensing and image analysis](#) products and tools include the national Individual Tree Species Atlas, individual tree species parameter maps, and the Forest Disturbance Monitor, a web-based forest disturbance data delivery system designed for integration with the insect and disease survey. [Forest vegetation simulator models](#) or the Forest Vegetation Simulator, is a family of models used for predicting forest stand dynamics such as tree growth, mortality, regeneration, management, disturbance, etc., throughout the United States. The [FHASST](#) assessment and applied sciences web site also presents story maps highlighting various insect and disease issues.

UPCOMING WEBINARS

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

***August 16, 2018 at 1:00 p.m. Eastern Daylight time. Tree Stewards: Case Study of Two Virginia Urban Tree Volunteer Programs.** (Sponsored by Southern Regional Extension Forestry) Speakers: John Freeborn (Assistant Extension Master Gardener Coordinator, Virginia Tech) and Nora Palmatier (Trees Virginia, Tree Steward Board Member). Tree Stewards are trained community volunteers that conduct educational programs and provide community tree care. This webinar will highlight Virginia Tree Steward programs and ways Extension Agents can work with volunteers to increase the health and beauty of their urban tree canopy. Virginia has developed two, successful urban tree citizen volunteer programs, called Tree Stewards. The Virginia Extension Master Gardener (MG) Tree Steward program offers advanced training to MG volunteers, including education on health, assessment, selection and care of urban trees and forests. Extension Agents work closely with volunteers to facilitate community education and other

activities, such as tree mapping. A second Tree Steward program operates under the non-profit Virginia Trees. Similarly, volunteers provide community education and work directly with local jurisdictions to assist with tree planting and street tree pruning. During this webinar, participants will learn how Extension Agents can work with volunteers to increase and maintain urban tree canopy using the successful Tree Steward programs as an example. On-line resources available for both MG and Trees Virginia Tree Stewards will be shared. Pre-registration is not required! CEU available: International Society of Arboriculture – 1 hour ISA Municipal Specialist Credit; International Society of Arboriculture – 1 hour ISA Certified Arborist Credit; International Society of Arboriculture – 1 hour ISA Management Credit. Plan to [join the webinar](#) 15 minutes early.

***August 16, 2018 at 3:00 p.m. Eastern Daylight time. Finding a Needle in a Haystack: Local Climate Information to Keep Producers Happy.**

(Sponsored by the Climate Learning Network) Speaker: Pam Knox (Agricultural Climatologist for the Crop and Soil Sciences Department in the College of Agricultural and Environmental Sciences at the University of Georgia). In this Climate Learning Network webinar, Pam Knox, Interim Director of the Georgia Weather network, will look at sources of climate data from a number of different agencies across the US and talk about how they can be used to document accidents, answer questions from reporters, monitor crop growth and conditions, and keep tabs on drought and floods in your county. She will also provide some links to sites you can visit to get projections of future climate for county officials or business planning. Pre-registration is not required! Plan to [join the webinar](#) 15 minutes early.

***August 29, 2018 at 2:00 p.m. Eastern Daylight time. Increasing Adoption of Residential Wood Energy: Past, Present, & Future.**

(Sponsored by North Carolina State University Extension Forestry, Southern Regional Extension Forestry, University of Maryland Extension) Speaker: Jonathan Kays (Natural Resources Extension Specialist, University of Maryland Extension). Wood is the fastest growing residential heat fuel in the United States and accounts for 75% of the residential renewable energy produced. Residential users have figured out that heating with wood and/or pellets has significant benefits, even with low fossil fuel prices. New EPA regulations on wood stoves may have significant impact on wood stove technology; meanwhile, pellet stoves continue to increase in popularity. This presentation will help you better understand issues regarding heating with wood and new developments and technology. Pre-registration is not required! CEU available: Georgia Master Timber Harvester – 1 hour CLE – Business Credit; Society of American Foresters - 1 hour Category 1 Credit. CEU applied for: New York Logger Training - .25 hour NYLT TLC 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.**

- **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](#) (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.
- **September 4, 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.
- **September 5-6, 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.
- **September 11, 2018 at 10:00 am – 4:00 pm (Mountain Time)** [ArcGIS 10.5 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).
- **September 12, 2018 at 10:00 am – 4:00 pm (Mountain Time)** [ArcGIS 10.3 – Spatial Analyst](#) (**Technical - GIS**) 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.
- **September 13, 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.

- **September 18, 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
- **September 19, 2018 at 10:00 am – 4:00 pm (Mountain Time)** [ArcGIS Pro for ArcMap](#) (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.
- **September 20, 2018 at 10:00 am – 4:00 pm (Mountain Time)** [ArcGIS 10.3 – Editing](#) (Technical - GIS) This class demonstrates editing environment in ArcGIS Desktop 10.3. 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.
- **September 25, 2018 at 10:00 am – 4:00 pm (Mountain Time)** [ArcGIS 10.3 – Advanced Editing](#) (Technical - GIS) 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.
- **September 26, 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.
- **September 27, 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.

- **September 27, 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.

PUBLICATIONS OF INTEREST

1. **Heroy, K.Y.; St. Clair, S.B.; Rogers, P.C.; Villalba, J.J.** 2018. The influence of the foodscape on quaking aspen stand condition and use by ungulates. *International Journal of Forest, Animal and Fisheries Research*. 2(2): 50-63.
2. **Rogers, P.C.** 2017. Guide to quaking aspen ecology and management. BLM-UT-G1017-001-8000. Salt Lake City, UT: U.S. Department of the Interior, Bureau of Land Management. 98 p. Available [online](#).
3. **Siry, J.; Cabbage, F.W.; Potter, K.M.; McGinley, K.** 2018. Current perspectives on sustainable forest management: North America. *Current Forestry Reports*. 4(3):138-149. DOI: 10.1007/s40725-018-0079-2.

FOR MORE FHM INFORMATION

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