

Forest Health Monitoring Program Monthly Update May 2019

WHAT'S NEW

Get to know FHM. This month get to know the **cooperative relationship with State partners.** FHM has been a cooperative program from the beginning. An important partnership exists between the U.S. Forest Service and the National Association of State Foresters. State participation has been and continues to be vital to the success of FHM. Here are some important examples of how State employees participate in and contribute to FHM.

- Active roles on the FHM [Management Team](#).
- Participating in FHM national workshops, actively contributing to development of FHM focus and effectively communicating information.
- Partners in aerial survey activities. While participation takes a different form from State to State, activities may include sharing responsibility for locating and contracting for appropriate aircraft, making observations, ground checking, and editing and summarizing data.
- Exploring specific issues affecting forest ecosystems via Evaluation Monitoring projects.
- Preparing or sharing responsibility for preparing the [Forest Health Highlights](#), annual reports highlighting the most important forest health issues in each State.
- Providing contacts for analysts with questions about specific issues in a State.

To find the coordinator for any State, contact the appropriate regional State representative on the [Management Team](#).

NEWS ABOUT FHM PARTNERS

An article was published recently (see Rabaglia and others [2019] in the *Publications of Interest* section of this Update) summarizing 10 years of the **USDA Forest Service's Early Detection Rapid Response (EDRR) program.** During the first 10 years of the survey, more than 840,000 specimens of bark and ambrosia beetles were collected and identified from 48 states, Puerto Rico and Guam; about 780,000 of the specimens were identified to species. Specimens covered about 3/5 (300/550) of the species that occur in the US, and 43 of the species collected were non-native species established in the United States.

The EDRR program continues in strong form with Alaska, Arkansas, California, Florida, Georgia, New York, North Carolina, North Dakota, Pennsylvania, Texas, and Washington placing EDRR traps in 2019. Nationally, the EDRR program has been adaptive, adding or substituting lures to target the most high-risk local pests and collaborating with the USDA-APHIS Cooperative Agricultural Pest Survey (CAPS) to increase the reach and efficiency of the survey effort. This program has greatly increased our modern knowledge of bark and ambrosia beetle fauna and distribution; developed screening aids; and deepened capacity to identify native and non-native beetles. Although Rapid Response continues to be a challenge, EDRR provides an opportunity to effectively respond to new detections.

UPCOMING EVENTS

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

October 30-November 3, 2019. Louisville, Kentucky. The 2019 Society of American Foresters National Convention. The call for presentations is now available. The deadline for presentation and proposals for professional development seminars and workshops was March 31. The deadline for science flashes and posters is **August 31**. For complete information about the convention as it becomes available, visit the [convention web site](#).

November 19-21, 2019. Knoxville, Tennessee. 2019 Forest Inventory and Analysis Science Meeting: Celebrating Progress, Possibilities, and Partnerships. The USDA Forest Service, Forest Inventory and Analysis (FIA) Program is pleased to announce the 2019 FIA Science Meeting, hosted by the U.S. Forest Service Southern Research Station and the National Council for Air and Stream Improvement, Inc. (NCASI). The theme of the 14th biennial Science is *Celebrating Progress, Possibilities, and Partnerships*, emphasizing innovation in maximizing use of the FIA “annual” sample design and data; development of delivery tools to meet client needs; integration of more powerful and efficient monitoring technologies and statistical techniques into established analyses; and implementation of FIA’s expansion into areas such as enhanced timber product monitoring, improved carbon/biomass estimates, enhanced ownership study, land cover/use research, urban inventory, monitoring of Interior AK, and small area estimation. The Symposium brings together international forest scientists, managers, and stakeholders with regional, national, and international inventory and monitoring missions. The first call for organized sessions, presentations, and demonstrations (digital engagement including applications, tools, databases, websites, storymaps, digital poster) is available. The deadline for **oral presentation abstracts is June 28, 2019** and for **digital engagement abstracts is August 30, 2019**. Abstract must be submitted [online](#). Note that submitted abstracts will be distributed digitally at the meeting. Meeting presenters are encouraged to more fully document their contributions by submitting an extended abstract for inclusion in a General Technical Report to be published

shortly after the conclusion of the meeting. Extended abstract submission details will be provided to all authors and made available on the meeting website. For more information, contact the meeting organizers at fia_science@fs.fed.us or visit the [symposium web site](#).

SAVE THE DATE! 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. Please save the date now; the agenda, and lodging and travel materials will be available as soon as possible. For further information, please contact FHM National Program Manager, Tom Eager at teager@fs.fed.us or 202-572-0387. Watch future *Monthly Updates* for updated information.

UPCOMING **WEBINARS**

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

***May 28, 2019 at 2:00 p.m. Eastern time. Managing Oak Forests for Northern Bobwhite Quail** (Sponsored by National Bobwhite Conservation Initiative, Oklahoma State University Cooperative Extension, North Carolina State University Extension, and Southern Regional Extension Forestry) Speaker: Dr. Dwayne Elmore (Extension Wildlife Specialist and Bollenbach Chair in Wildlife Management, Department of Natural Resource Ecology and Management, Oklahoma State University). The Southeast United States has millions of acres of oak dominated forests that have a closed canopy with limited herbaceous and shrub understory that northern bobwhite require. Research has demonstrated, however, that with adequate overstory thinning, and the use of frequent prescribed fire, these forests can support populations of Northern Bobwhite Quail, presenting perhaps the best opportunity for large-scale quail restoration in the region. Participants in the webinar will learn about managing oak forests and restoration efforts related to Northern Bobwhite Quail. No pre-registration is required! CEU applied for: New York Logger Training – Trained Logger Certification (NYLT-TLC) - .25 hour NYLT TLC Credit; Georgia Master Timber Harvester – Continuing Logger Ed. (GaMTH CLE) – 1 hour CLE Continuing Logger Ed Credit. CEU available: Society of American Foresters – Certified Forester Education (SAF-CFE) - 1 hour Category 1 Credit; The Wildlife Society (TWS) – 1 hour TWS Category 1 Credit; Certificate of Participation. To access this free webinar, visit the [webinar information site](#) for more details. Plan to join the webinar 15 minutes early.

***May 29, 2019 at 1:00 p.m. Eastern time. The Shiny-capped Ganoderma Species of the United States** (Sponsored by Southern Regional Extension Forestry) Speaker: Dr. Andrew L. Loyd (Plant Pathologist/Mycologist, Bartlett

Tree Research Laboratories). Ganoderma is a large and diverse genus of wood decay fungi that can rot the roots and/or lower trunk of many tree species. Trees infected with Ganoderma often show symptoms like branch death, sparse crowns, slow growth, wilting leaves, and other symptoms of root death that can lead to hazardous tree conditions and tree failures. Most Ganoderma species in the southeastern United States are opportunistic pathogens that take advantage of stressed plants. Drought-stressed plants and plants growing under suboptimal conditions in urban settings appear to be more susceptible to decay by Ganoderma. Choosing the appropriate tree species for a given landscape can be an effective management strategy to prevent and/or slow decay. Maintaining healthy trees by preventing wounding and providing proper fertilization, irrigation, mulching, and other plant health care tactics will improve the resiliency and resistance of trees to decay fungi. When Ganoderma fruiting bodies are found in the landscape, a tree risk assessment should be performed to evaluate the level of hazard presented. Quantifying the area of decay within trees, knowledge of which Ganoderma species is present, and what tree species is infected can assist with tree structure evaluations and risk assessments of hazardous trees. This webinar will cover the biology, identification and management of several common Ganoderma species in the Southeast U.S. No pre-registration is required! CEU available: Certificate of Participation; Georgia Master Timber Harvester – Continuing Logger Ed. (GaMTH CLE) – 1 hour CLE Environmental Credit; International Society of Arboriculture (ISA) – 1 hour ISA Utility Specialist Credit; International Society of Arboriculture (ISA) – 1 hour Municipal Specialist Credit; International Society of Arboriculture (ISA) – 1 hour ISA BCMA Science Credit; International Society of Arboriculture (ISA) – 1 hour ISA Climber Specialist Credit; International Society of Arboriculture (ISA) – 1 hour ISA Certified Arborist Credit; International Society of Arboriculture (ISA) – 1 hour ISA Aerial Lift Credit; 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. To access this free webinar, visit the [webinar information site](#) for more details. Plan to join the webinar 15 minutes early.

*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.**

- **May 17, 2019 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.
- **May 21, 2019 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.
- **May 22, 2019 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. The GIS data and map setup is also discussed. You will need a smart phone or tablet, an internet connection for setting up the device, and a Forest Service ArcGIS Online account.
- **May 23, 2019 at 10:00 am – 4:00 pm (Mountain Time) [Intermediate ArcGIS Online](#) (**Technical - GIS**) **Forest Service Only**** ****US Forest**

Service organizational account for AGOL required, see other info for more details** **A general understanding of ArcGIS Online and GIS 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.

- **May 29, 2019 at 10:00 am – 4:00 pm (Mountain Time) [ArcGIS 10.5 – Using Citrix for GIS Projects](#) (Technical - GIS) [Forest Service Only](#)**
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 an example collaborative project.
- **May 30, 2019 at 10:00 am – 4:00 pm (Mountain Time) [ArcGIS Pro for ArcMap Users](#) (Technical – GIS) [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 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.
- **June 4-5, 2019 at 10:00 am – 4:00 pm (Mountain Time) [ArcGIS 10.5 – 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.
- **June 6, 2019 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. The GIS data and map setup is also discussed. You will need a smart phone or tablet, an internet connection for setting up the device, and a Forest Service ArcGIS Online account.

- **June 12, 2019 at 10:00 am – 12:00 pm (Mountain Time) [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.
- **June 13, 2019 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.
- **June 18, 2019 at 10:00 am – 4:00 pm (Mountain Time) [ArcGIS 10.5 – 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.
- **June 27, 2019 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.

Job Opportunities

The State of Washington, Department of Natural Resources invites applications for the position of Forest Health Research Analyst. This is a full-time, permanent position to be located in Olympia, WA or other locations that may be considered. The DNR Forest Health Division is looking to add to their

growing team of natural resource professionals committed to restoring and managing the health of Washington's forests. This position will play a critical role analyzing and monitoring forest health conditions that will inform large forest landscape restoration efforts such as the 20-Year Forest Health Strategic Plan. The position will interact with a wide variety of scientists, land managers and stakeholders to help them understand complex scientific concepts and apply them in landscape restoration efforts. If you are a scientist that has proven experience managing natural resources, analyzing landscape level forest health conditions and risk using remotely sensed datasets, developing forest health treatment plans and prescriptions, communicating complex scientific topics to technical and non-technical audiences, publishing research findings in refereed publications, and a passion and commitment to working collaboratively with internal and external stakeholders to create healthy, resilient forested landscapes, the DNR wants to hear from you! This position is responsible for developing cutting-edge tools to analyze forest conditions and accelerate pace and scale of treatments; partnering with DNR scientists and other researchers to analyze and monitor forest health conditions; performing landscape evaluations to develop forest health treatment prescriptions for priority watersheds; working with land managers to translate science into practical applications; building and maintaining statewide forest health datasets; developing and implementing monitoring and research projects; and conducting fieldwork to inform landscape evaluations and monitoring studies. **The closing date is 05/26/2019 11:59 P.M. Pacific.** To be considered you must apply **online** (www.careers.wa.gov). Click on "Look for Jobs" and enter the position title (Forest Health Research Analyst) in the search box for complete information about the position including the application process. *Washington State Department of Natural Resources is an Equal Opportunity Employer and prohibits discrimination and harassment of any kind. We are committed to providing equal employment opportunities in a fair and impartial manner for all persons without regard to age, sex, marital status, sexual orientation, gender identity, race, creed, color, national origin, religion, pregnancy/parental status, genetic information, military status, political affiliation, criminal history or the presence of any sensory, mental or physical disability or the use of a trained service animal by a person with a disability. Persons with a disability who need assistance during the screening process or those needing this announcement in an alternative format may contact DNR Recruiting staff (360) 902-1350 or (360) 902-1128. DNR may be contacted using the Washington State Telecommunications Relay Service (TRS) by dialing 711.*

PUBLICATIONS OF INTEREST

1. **Pando, the Trembling Giant.** April 7, 2019. [UTopia \(KJZZ Salt Lake City\)](#). Episode 20. Television documentary addressing the research of Dr. Paul Rogers (Director, Western Aspen Alliance) and restoration efforts

activities at the famed Pando aspen clone. (Note: The Pando segment has two parts. At the end of Part 1, keep watching until Part 2 begins.)

2. **Rabaglia, R.J.; Cognato, A.I.; Hoebeke, E.R.; Johnson, C.W.; LaBonte, J.R.; Carter, M.F.; Vlach, J.J.** 2019. Early detection and rapid response: a 10-year summary of the USDA Forest Service program of surveillance for non-native bark and ambrosia beetles. *American Entomologist*. 65(1): 29-42.

FOR MORE
FHM
INFORMATION

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