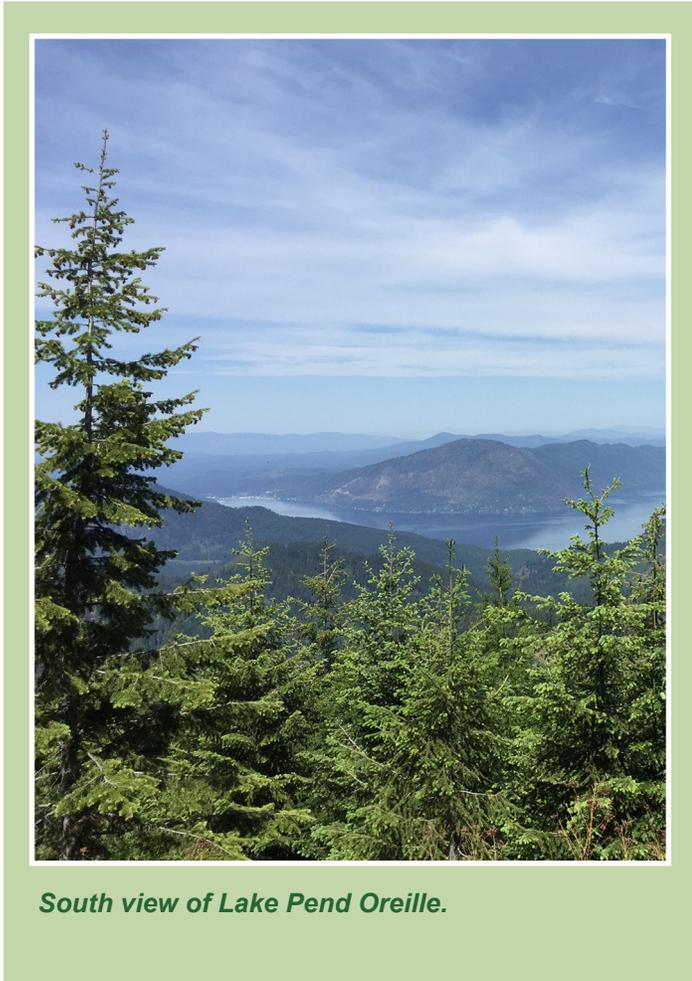


# RMRS INTERIOR WEST FIA NEWSLETTER



Vol. 2 – JULY 2016



South view of Lake Pend Oreille.

## PROGRAM MANAGER'S NOTES

### WANTED: Your Leadership!

This is an exciting time to be in the Forest Service, ESPECIALLY in Forest Inventory and Analysis (FIA)! With the implementation of the 2014 FIA Strategic Plan directing new growth in FIA; changes in how the Agency does business (new natural resource challenges, the ever increasing cost of fires, travel caps, new technologies); numerous changes in staff both at the Rocky Mountain Research Station (RMRS) and here in the Interior West FIA (IW-FIA); and a new focus at RMRS on transformational dialog and shared leadership, it is obvious that, as Bob Dylan sang, "the times they are a-changin'." With those changes come many opportunities to make a difference and many places where the Program needs YOUR leadership.

When challenged with these issues and changes, be a leader where you are. You might think "Michael, you keep saying that, but WHAT does it look like?" It looks like:

- **Be an Influencer:** Influencing kids to experience natural resources and science; influencing co-workers to have open dialog about safety and about the woods; influencing new employees to help them understand the organizational culture for which we strive.
- **Be a Creative Problem Solver:** You can either stall long enough or hide and hope "it" goes away, or you can step up and find a way to make it work better, safer, more efficient.
- **Be an Improviser:** Rely on your wits and experience when the situation doesn't fit the expected.
- **Be a Positive Source of Energy to Those Around You:** No matter WHAT situation you find yourselves in, whether it's something fun or really hard, or boring, or annoying, it's nearly always more productive and enjoyable when you're with someone who looks for the silver-lining. I have a friend whose motto is, "I never lose! I either win or I learn!" That attitude is contagious!
- **Be a Seeker of Something New and Transformational:** Ask for others' ideas; really explore and understand others' perspectives, and truly be open to new ways of thinking.

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**Links:**  
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# PROGRAM MANAGER'S NOTES

As I'm really learning, leadership is NOT just managing what is or even visioning or forecasting (terms often associated with leadership); in a big way, it is doing the work of creating that future. That's a piece of what I mean to be a "leader where you are."

Here are some things to watch for in the coming year:

## Dialog Around Where We Want to be as an Agency for the NEXT 100 Years

The first Forest Service Agency leader (Gifford Pinchot), in what is referred to as the 1905 USDA "Use Book," stated: "In the administration of the forest reserves, it must be clearly borne in mind that all land is to be devoted to its most productive use for the permanent good of the whole people, and not for the temporary benefit of individuals or companies. All the resources of the forest reserves are for use, and this use must be brought about in a thoroughly prompt and businesslike manner, under such restrictions only as will insure the permanence of these resources." Though we've tended to continue managing the landscape

this way ever since, it's time to step back and have some conversations. How have our publics, and our relationships with them, changed? How have the forests, and desired uses for the forests, changed? You will have the opportunity to participate in this dialog and even provide leadership on where we go from here. WHAT an opportunity!

## Implementation of the 2014 FIA Strategic Plan

We're already gearing up to start Urban FIA along the Front Range of Colorado in collaboration with Colorado State University and many local partners, and we're looking forward to expanding along the Wasatch Front in Utah and Phoenix/Tucson in Arizona. These efforts will be much more collaborative than our historic way of doing business, working closely with States and local communities. The Interior West FIA unit is serving as the lead in the national work to address Land Cover and Land Use change at more frequent intervals and more spatially comprehensive than our FIA grid sample. We've already initiated an Image-based Change Estimation (ICE) in several FIA regions including the Interior West, and we're working collaboratively with other agencies to pool techniques and resources to address a broad range of information needs. We are also working with several universities in the West and the Forest Service Management Center to develop new and consistent tree volume and biomass equations to more effectively track and report renewable biomass and carbon stocks. Many of you are, or will be, engaged in leading and/or supporting these efforts.

## More Focused Customer Service for our NFS Partners

The Research and Development (R&D) branch to which we belong is a small but critical part of this larger Forest Service land management agency formally started by Gifford Pinchot in 1905. We are now working more closely with Regions and Forests in their planning and monitoring, learning together how FIA can help support their needs and save the Agency expense and litigation by bringing our in-place statistical approach to monitoring questions. We are also developing tools and analyses to help NFS staff more effectively access and understand FIA. YOU can provide leadership locally by serving as a liaison, an advocate, and "the eyes and ears" for FIA to better understand NFS needs and issues.

So, thank you for those who have already stepped up in a big way here in IW-FIA, and please continue to think about your leadership opportunities in the "changin' times" ahead.

— *Michael Wilson*



**Max Wheeler and Dave Herwig at habitat type training near Coeur d'Alene.**



# TEAM UPDATES

## ANALYSIS TEAM

- The Analysis Team recently participated in a series of workshops on broad-scale monitoring and assessment, which were organized by Regions 2 and 3 and facilitated by Northern Arizona University and Colorado State University. Chris Witt is a member of the multi-organization broad-scale monitoring group, and had been participating for about 18 months prior to the start of the series. Chris presented overviews of the IW-FIA program and applications to wildlife habitat monitoring at the workshops in Phoenix and Albuquerque. Paul Patterson (Techniques) gave an overview talk in the Denver workshop, and Sara Goeking and Justin DeRose provided a wide range of analysis applications at the Laramie workshop. The Laramie workshop also served as a jumping-off point for the upcoming State report for Wyoming.
- Sara Goeking is participating in the Utah Riparian Forest Restoration Initiative, which was created by the collaborative Utah Forest Restoration Working Group (UFRWG). The purpose of the UFRWG is to make recommendations concerning the restoration and management of forested lands in Utah. Their vision is to enhance and protect the ecological health and economic values of forested lands and communities in Utah by working collaboratively. The purpose of the riparian initiative is to develop a set of practical guidelines for restoration of riparian forests in Utah. Members of the group represent several Federal agencies including the US Forest Service, the Bureau of Land Management, and the Natural Resources Conservation Service; State agencies including the Division of Forestry, Fire and State Lands, the Division of Environmental Quality, and the Department of Agriculture and Food's Grazing Improvement Program; and non-governmental organizations including the Society of American Foresters, the Grand Canyon Trust, Trout Unlimited, and the Wild Utah Project.
- John Shaw gave a presentation to over 150 members of Society of American Foresters (SAF), the Colorado Timber Industry Association, and the Colorado Tree Farmers Association at the recent Colorado/Wyoming SAF Annual Meeting in Gunnison, Colorado. The meeting was themed, *The New Normal: Adaptive Forest Management in a Changing World*. John's presentation covered highlights of the recently completed Colorado State report, including issues like mortality trends and fire effects. There was a high level of interest in the IW-FIA program among attendees, and orders were placed for almost 100 print copies of the Colorado and Wyoming reports. Several members from the Colorado State University FIA team also attended the meeting.
- Two new reports, Utah's Forest Resources, 2003-2012 (RMRS-RB-20; <http://www.treesearch.fs.fed.us/pubs/50931>) and The Four Corners Timber Harvest and Forest Products Industry, 2012 (RMRS-RB-21; <http://www.treesearch.fs.fed.us/pubs/50961>) are available online. Print copies will be available in the near future. The next major reports in the series, the Nevada and Colorado forest resources reports, are in the editing and layout stage. The Arizona State report will follow close behind, and reports for the remainder of the IW States will be drafted during the coming year.
- The FIA urban forest inventory has been gearing up over the past year, but IW-FIA does not yet have an urban area firmly committed to doing an inventory. This is partly due to a quirk in the selection system, which uses Census Bureau boundaries, used to prioritize cities and their surrounding areas. For example, Salt Lake City isn't a high-priority city because there are only about 185,000 people within the city limits. However, the population of the contiguous urban area along the Wasatch front is over 2.2 million. Alternative approaches to the urban plot layout are being explored for the Wasatch Front and the Front Range of Colorado. After some details are worked out, a big move into urban forest inventory will be in the near future of IW-FIA.

## DATA COLLECTION TEAM

- Field Training Session: In conjunction with the IW-FIA All-Hands meeting, a field training session was held in early May. Nearly all Data Collection team staff were in attendance and it was a great way to get people certified in various skills (wilderness first aid, ATV, aviation, bear safety, etc.), get stocked up on vehicle equipment and field gear, and take care of administrative issues best done in Ogden. There was a full day of presentations by the Analysis Team on various studies being conducted and the use of FIA data. In addition, it was a rare chance to interact personally with Ogden office staff and Data Collection team members who are new or who work in other areas.

# TEAM UPDATES

- **Personnel Hiring:** Springtime is usually the peak time for personnel changes, and that was certainly the case this year! Despite the clunkiness of the hiring system, a bunch of personnel actions took place. Fifteen summer-seasonal (1039 hour) positions were filled, with all but three of those on board and starting work by the PP 9 training session. An Idaho Area Leader was hired, and several of the five vacant crew leader positions were filled. Out of a staff of 70 people, eight are new to FIA this summer.

Hopefully more hiring will follow, an outreach notice for crew leader positions is expected soon, and we expect to fill permanent-seasonal crew member positions late this summer or early fall.

- **Field Season Start:** While some plot access is still limited by snow and/or runoff up North, and is already limited by high temperatures in the South, field work is up and going in all States.

## TECHNIQUES TEAM

- Sean Healey and Paul Patterson are co-principal investigators and statistical support for the Global Ecosystem Dynamics Investigation (GEDI) Lidar system. The main measurement tool is laser that will be mounted on the Space Station. The project is funded by a multi-year grant from NASA. Among its scientific goals is to quantify the distribution of above-ground forest carbon at fine spatial resolution.
- This year brought a flurry of international activities. This past winter, twelve forest inventory specialists from Peru, Honduras, and El Salvador participated in a week-long study tour on inventory design and analysis in Ogden, Utah, hosted by Paul Patterson. This exchange continued to build the participants' capacity to apply the most advanced approaches to forest inventory and resource monitoring in their countries. At mid-week, this group switched locations with a group of 20 forest inventory specialists from Costa Rica that were visiting the Remote Sensing Applications Center; for a similar session in Ogden hosted by Gretchen Moisen.
- At the request of the Forest Service's International Programs, Paul Patterson and Tracey Frescino have developed an on-going collaboration with the Food and Agriculture Organization (FAO) of the United Nations working with Open Foris Calc, a free, open-source tool

for estimation and analysis of forest inventory data. While Calc can be used by any forest inventory, for example FIA, it will be very useful for countries just establishing their inventory. The work has involved frequent conference calls with the developer of Calc, along with a couple of visits to Rome for more intensive work, and most recently, a workshop in Lima, Peru using Calc for analyzing data from Peru's National Forest Inventory.

- Also at the request of International Programs, Karen Schleeweis visited Colombia to assess possible collaboration between the Forest Service and regional government bodies to support USAID's program of climate change mitigation. In support of these goals, she and Andy Lister (NRS) co-taught a workshop in Colombia on Land Cover and change mapping using satellite imagery.
- A Forest Inventory ESTimation and Analysis (FIESTA) tool is currently in development at IW-FIA for FIA analysts that work in the open-source, R statistical programming environment. FIESTA is a research tool or 'package' that can access FIA databases, summarize and compile plot and spatial data, and generate estimates of FIA data. It is flexible for accommodating unique population boundaries, different time periods, customized stratification schemes, and non-standard variance equations, while allowing integration of remotely-sensed and other ancillary data.
- Liz Freeman and Tracey Frescino are making statistical tools like FIESTA shine with shiny, an R software package enabling the development of user friendly web applications. The coming year will be a time to explore how shiny apps might be useful in many aspects of our Program.
- Last November Chris Toney began transitioning away from his post as our LANDFIRE liaison and assumed responsibilities for our Spatial Data Services and filling many of our other information technology needs. The number of requests we are getting for our data seems to be growing exponentially, which will bring new opportunities for collaboration and growth in the future.
- Karen Schleeweis was invited to attend the 2020 RPA planning meeting in Fort Collins. National attribution maps of annual forest disturbance events over the last 26 years, currently being produced by Karen, Chris Toney, and Gretchen Moisen will be incorporated into new RPA work and provide a fresh perspective.

# TEAM UPDATES

- One of the tools developed to produce these national attribution maps, the “shapes” algorithm was publically distributed in R’s library of packages and published in Global Change Biology with partners from Colorado State University.

## INFORMATION MANAGEMENT TEAM

- The Information Management Team has been busy amidst a series of personnel changes. Yet with all the shuffling of deck chairs, data have been managed, PDR configurations built and tested, historical data files uploaded and printed, previous inventory year data edited, cores processed, states-worth of data processed for loading into NIMS, as well as a fair bit of mentoring to keep all the wheels in motion. In addition to the regular IW-FIA Program specific work, members of the team continued with a focus on

national objectives for the Data Center migration and development of national applications, as well as a view to a future national IT support group.

- The opportunity for the team to gather in one location this spring was fortuitous. Last October, a few new members joined the team, while other members took on additional responsibilities. At that time, the team gathered to review the lengthy plan of work, consider retirements, and re-divide the plan of work duties. The gathering in May gave us the chance to “check in.” What were our successes since October? What are the big-ticket items in our future (did someone mention the Black Hills, NOMS)? We met as a team with our immediate past-Team Leader, Troy, who no doubt was using some of his newly acquired Senior Leader skills to lead the discussion. The meeting in May also allowed us time to “check in” with other staffs, or just to say hello to someone we hadn’t seen in a while or looked forward to meeting in person.



*Jessica Shotzberger, Max Wheeler, and Brett Wilson at horse training in Athol, ID.*

# STAFF SPOTLIGHT

## ERICH KYLE DODSON

Forester  
Information Management Team  
Ogden, UT

For maximum confusion, I go by my middle name Kyle. I started work as a Forester with the Information Management Team in the Interior West FIA Program in October 2015. I work closely with the other team members to compile field data and run computations of numerous attributes in the National Information Management System (NIMS; affectionately known as the sausage factory). These procedures get the data ready for publication to the national database (FIADB) and for use by our partners and the Analysis Team. This includes calculating tree attributes like basal area, stand attributes like stand age and stocking, as well as trends such as growth and mortality. We also provide detailed data processing reports that provide information on processing a given state in a given year (e.g., Idaho in 2015).

I also serve as a member of the development team (D-team) for NIMS, a national team that coordinates information management among the four FIA regions. This team is responsible for developing, evaluating, and updating the many procedures performed in NIMS. We identify issues with coding and computations and makes adjustments and corrections as needed. We also get to test out all the new procedures before they are adopted into the production environment. I got to jump in head first in my first few months with FIA trying to help test new routines for down woody material as well as growth, removals, and mortality.

In addition, I work on other projects as needed. For example, I've been working with information technologists, analysts, the Remote Sensing Application Center, and folks from the Forest Management Service Center to help produce FIA data in a format that can easily be used by the Forest Vegetation Simulator (FVS) model. I also try and answer questions about procedures as they arise, e.g., about the RMRS stand age calculation and how the volume in missing tops is deducted from sound tree volume.

As a new member of FIA, I've been trying to learn about the plethora of data collected by FIA and the procedures to process that data. Thanks to all the helpful, friendly, and patient FIA veterans who are helping me along during this learning process.

Prior to FIA, I did forestry research for Oregon State University, the USFS Pacific Northwest Research Station, the National Park Service (North Cascades) and the University of Montana where I received an MS in Forestry. Much of this work focused on the effects of thinning and fire ecology. I'm always interested in hearing about post-fire observations from the field, so feel free to let me know if you see something interesting or want to chat about fire ecology. I live in Ogden with my wife and son where we enjoy getting out and exploring the world, including trying to understand recovery after wildfires.

Profile: <http://www.fs.fed.us/research/people/profile.php?alias=erichdodson>

