

References

Mark Melvin

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Geospatial and Information Technology Director- Tall Timbers Research Station

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Education

-MS: Forestry, Focus: Fire Ecology, The University of Missouri, Columbia (2022)

(Advisor Dr. Benjamin Knapp)

-BS: Wildland Fire Science, Minor: Conservation Biology; The University of Wisconsin, Stevens Point (2018)

(Advisor Dr. Ron Masters, Dr. Michael Demchik)

Publications and Articles

- **Jensen, G. L.**, Knapp, B.O., Cannon, J.B., Bigelow S.W. **2023**. *Effects of aggregated longleaf pine saplings on fuels, fire behavior, and fire effects. (In-review)*
- **Jensen, G. L.**, Knapp, B.O., Cannon, J.B., Bigelow S.W. Stambaugh, M.C., **2022**. *Turning Up the Heat: Fire Ecology and Climate Adaptive Silviculture in Longleaf Pine Forests (Thesis)*
- **Jensen, G. L. 2023.**, *Jeremy Green, Continuing the Legacy of Fire (Article)*
- **Jensen, G. L. 2023.**, *Recognizing Johnny Stowe for Outstanding Efforts in Private Lands Fire (Article)*
- **Jensen, G. L.**, McGuire, J.M., **2022.**, *Tall Timbers Supported Prescribed Burn Associations (Article)*
- **Jensen, G. L.**, Noble, J., Simonson, E., **2022.**, *Drones Taking Flight for Fire and Research (Article)*

Professional Presentations/News Appearances

- **Jensen, G.L., 2023.** *VSMOKE Training Guide*, created as part of extension work at Tall Timbers, used by Georgia Forestry Commission, Georgia DNR, Quail Forever, and private land owners. (Virtual Presentation)
- **Jensen, G.L., 2023.** *From Bought to Burned, The Nuances Behind Fire on Private Lands*, Training created and put on as part of extension work at Tall Timbers (In Person Presentation)
- **Jensen, G.L.**, McGuire, J.P., Prusak, Z., **2023.** *Applying Fires of the Delmarva Region*, Training created and put on as part of extension work, hosted in Maryland (In Person Presentation)
- **Jensen, G.L.**, McGuire, J.P., **2022.** *The Economics of Prescribed Fire in Southern Forests*, Training created and put on as part of extension work at Tall Timbers (In Person Presentation)
- **Jensen, G. L. 2022.** *Prescribed Burn Associations*, Presentation for Tall Timbers Board of Directors. (In Person Presentation)
- **Jensen, G. L. 2022.** *Climate Mitigation, Landowners, and GIS*, Presentation at Seven Hills Reginal GIS Users Group. (In Person Presentation)
- **Jensen, G. L. 2022.** *Prescribed Burn Associations and Their Role in Climate Mitigation*, Presentation at Clemson University for South Carolina Prescribed Burn Council. (In Person Presentation)
- **Jensen, G. L. 2022.** *Prescribed Burn Associations in Southwest Georgia*, Presentation at State Interagency Burn Team (IBT) meeting, Georgia (In Person Presentation)
- **Jensen, G. L. 2022.** *Adaptive Silviculture for Climate Change*, Thesis Defense. Accolades from USFS Northern Research Station. (Virtual Presentation)
- **Jensen, G. L. 2021.** *Adaptive Silviculture for Climate Change*, Presentation at the 9th annual International Fire Ecology Congress regarding findings of graduate work, November 30th, 2021. (Online Poster Presentation)
- **Jensen, G. L. 2021** *Trajectory*, Presentation to undergrads who are employed by various state and federal agencies on achieving higher education. October 28th, 2021 (Virtual Presentation)
- **Jensen, G. L. 2021.** *Adaptive Silviculture for Climate Change*, Presentation to Mississippi Forest Service and Woodruff Foundation regarding findings of graduate work, The Jones Center at Ichauway, Newton Georgia. June 25th, 2021. (Oral Presentation)

- **Jensen, G.L. 2019.** *Preventative Measures*, Interview with State Media on highly endangered Poweshiek Skippering. Wisconsin, July 7th, 2019 (Interview)
- **Jensen, G.L. 2019.** *Lupinealooza*, Presentation about volunteer Lupine harvest results at Wisconsin DNR Bureau Meeting, Devils Lake State Park. November 10th, 2019 (Oral Presentation)
- Robaidek, J., **Jensen, G.L. 2019.** *Cranberry Creek*, Co-leader of Natural Resources Foundation tour on Wisconsin largest effigy mound complex, Necedah, Wisconsin. March 30th, 2019. (Oral Presentation)
- **Jensen, G.L. 2018.** *Steinhaugen Restoration Management Plan*, 2018, Presented to city of Stevens Point Park director as part of Capstone Project. University of Wisconsin, Stevens Point. May 12th, 2018. (Oral Presentation)
- **Jensen, G.L. 2018.** *Students for Restoration*, Appeared on Local news channel as spokesman for ongoing restoration project University of Wisconsin, Stevens Point. December 2nd, 2018. (Oral Presentation)
- **Jensen, G.L. 2018.** *Stevens Point Students Teach Fire Certs*, 4 appearances on local news channels as Public Information Officer for UWSP Fire Crew. The University of Wisconsin, Stevens Point October 30th, 2016 - October 28th, 2018. (Oral Presentation)
- **Jensen, G.L. 2018.** *UWSP Fire Crew Introduction*, Michigan Prescribed Fire Council, Attendance, and short presentation at Michigan Fire Consortium introducing the crew and our ongoing research. Kalamazoo, Michigan, February 2nd, 2018. (Oral Presentation)
- **Jensen, G.L. 2017.** *A Day in the Life of a Fire Scientist*, Designed and presented STEM presentation for middle school girls interested in the sciences alongside Dr. Ron Masters. University of Wisconsin, Stevens Point. January 2017 - January 2018 (Oral Presentation)
- **Jensen, G.L. 2017** *Natural Resources Major*, An introduction to different career options for intercity school children The University of Wisconsin, Stevens Point, March 1st, 2017. (Oral Presentation)

Held Certifications

Fire

- RxB3 Burn Boss and Rx12 Ignitions Specialist through State of Wisconsin (IWCG Certifications up through S390)
- Rx310 Prescribed Fire Effects taken for Central, Southern and Western Range Ecosystems

Forestry:

- Forestry Best Management Practices certified (2020)
- Wisconsin Access Plan certified (2017)
- Timber Marking for Wildlife certified (2017)
- Forestry and Right of Way Herbicide certified (2020)
- Aquatic Application and Mosquito certified (2020)

Aviation:

- UAG certified, over 400 hours of flight time

Employment

PBA Coordinator- Tall Timbers Research Station

Accomplishments and Related Skills:

- Southwest Georgia Prescribed Burn Association (PBA) Coordinator for 18 counties in SW Georgia, over 50,000 acres represented in PBA
- Coordinated and designed fire ecology and application trainings for partner organizations and private landowners
- independently facilitated the teaching of Georgia Certified Burner Manager Course for over 225,000 acres of Georgia private lands.
- Nexus for private landowners, prescribed fire specialists, researchers and practitioners
- Resource for Landowners on best management practices as laid out by Tall Timbers Private Lands Fire Initiative
- Co-lead continued development of Tall Timbers Drone Program including significant contributions to written policy
- Interpretation of research and fire ecology to applied fire science.
- Grant and Funding acquisition, directly responsible for \$70,000 partnership with GA DNR, assisted on grants up to \$3 million dollars

Adjunct Professor of Natural Resources- Thomas University

Accomplishments and Related Skills:

- Designed coursework for Ecology, Introduction to Geography and Wildland Fire Science courses
- Surveyed well by students
- Rewrote course curriculum to incorporate more critical thinking in the classroom

Research Assistant- The University of Missouri, Columbia: The Jones Center at Ichauway

Accomplishments and Related Skills:

- Designed and implemented research protocols on two research projects topics of which included: fire ecology, longleaf pine ecology, advanced regeneration, UAV data collection, first and second order fire effects, and fuel sampling
- Participated in outreach programs which focused out prescribed fire education and outreach
- Lead crew of up to 4 technicians in field research activities over 6 months
- Utilized modeling techniques to compare destructive and non-destructive sampling techniques efficacy
- Database management
- Performed prescribed burning duties for congruent projects, topics included shortleaf pine regeneration, longleaf pine understory biodiversity studies
- Aided lead scientist in development of other research projects which included use of ground-based LiDAR and permanent plot establishment
- Assisted USDA in Hog management project as UAV pilot, over 70 hours of flight time on project

Habitat Specialist/Project Manager-Cason and Associates

Accomplishments and Related Skills:

- Started small scale prescribed burning program for private landowners (working with NRCS private lands biologists)

- Human Dimensions of Natural Resources; interacting and educating the public in natural resources and habitat management. Consulting large firms on land management and treatment options for restoration
- Often left to work alone with strict deadlines
- Education of co-workers on restoration methods and fire ecology
- Interdisciplinary education on hydrology and ephemeral wetland ecology, including baseline indicators for wetland delineation
- Procured and lead projects dealing with habitat restoration and improvement, one project included mining reclamation
- Designed WDNR approved Forestry Stewardship Plan for private landowners
- Developed seed mix for mixed grass and tall grass prairies based on soil composition

Conservation Biologist, Wisconsin DNR- Natural Heritage Conservation/Endangered Resources

Accomplishments and Related Skills:

- 800-acre post burn forb and C4 grass hand seeding effort. Personally, responsible for selection of 15 species valued at \$55,000 and identified high potential areas for best chance of establishment.
- Oak savannah restoration and management including 6500-acre parcel and effigy mound restoration
- Over 1000 acres of Prescribed burning with WNDNR in 2019 with leadership role on high-risk burns. Burns took place in barrens, grasslands, oak savannah, and tall grass prairie.
- Post Burn Evaluations for: mortality, new species establishment, seed bank vitality, and secondary fire effects
- Interviewed and published in Wisconsin Natural Resources (Winter 2019: "Preventive Measures")
- for our work surveying for rare and endangered species
- Coleader on a lupine harvest project, collected 78 pounds of clean seed, valued at \$22,000, outreach efforts reached 8000 people
- Lead volunteer group to aid in restoring a John Muir site in central Wisconsin, managed to have group run autonomously after initial startup
- Rewarded for re-organization of data collection efforts 2010-2019
- Heavy machine operation in difficult terrain, often employing extreme problem solving to be able to safely maneuver terrain. Experienced on; 40hp Excavators, 30-110hp Tractors, ATV's, Tracked UTVs
- Working with and around the public to teach best management practices and leading volunteer service days which raised \$30,000 in match funding
- Plant surveys with district ecologist and state plant experts
- Assisted with Greater Prairie Chicken surveys management
- Goose Banding for BBL and WNDNR
- Lead surveys for TNE species; Karner Blue Butterfly, Poweshiek Skipperling, Kirtland's Warbler
- Hold county first spotting for various box turtle spp. (Wisconsin Wildlife Surveys, Andrew Badjie, 2019)

STEM Teacher/Field Trip Coordinator

Accomplishments and Related Skills:

Designed and implement STEM orientated fieldtrips for 35 children ages 11-1

- Mentor children in career options and potential schooling
- Often brought in to teach general classes

Wildland Fire Fighter, Helitack; BLM

Accomplishments and Related Skills:

- Employed suppression tactics in difficult terrain for long hours

- 4000 acres of prescribed burning in Wyoming and Montana in both Rangeland and Subalpine ecosystems (See: "High Desert District Prescribed Burns", YouTube, Wyoming BLM)
- Leadership roles: Squad boss, Firefighter Type 1
- Knowledge gained of Helicopter operations and effective communication in high stress environments

Academic, Special Projects, and Classes

- **04/21/2015** Pushmataha restoration and management site, Oklahoma: Whitetail Deer and Turkey restoration projects. Education on ungulate management with an emphasis on controlled burns relating to elk management on Lodge Pole pine and tall grass prairie ecosystems
Red Cockaded woodpecker restoration projects and education on endangered species with Oklahoma DNR. This work mainly focused on two facets: Plant survey via 1 meter by 1-meter clippings for species composition and post fire effects and implementing prescribed burns on 8 ongoing research plots
- **04/01/2016** Cook County, Illinois: Wildland Urban Interface (WUI) management projects, burning of wetlands, marshes, and mixed forests. Invasive animal education and management including riparian areas. Cooperating with the Forestry Preserves of Cook County in various locations. Operations of heavy equipment in stressful situations
- **Summer 2016** Stewardship abroad: Poland, Germany, Iceland
Poland: three weeks of education of the management practices of Poland, this included wildlife, entomology, mining, and restoration. -Germany: three weeks spent leaning about the management of Germany's woodlands and prairies in the Black Forest
Iceland: two weeks of study involving environmental tourism and restoration of ecosystems
- **Winter 2016** Stewardship abroad- Panama: Three weeks in based in eastern Panama assisting in the reclamation and protection of the local watershed. Excellent written and interpersonal communication skills required to handle the language gap. (From Mass to the Mountain by Kurt Sensenbrenner, 2017)
- **01/10/2017** Goldhead State Park/St Sebastian State Park, Florida: Large scale ecosystem disturbance management. Bald Eagle and Red Cockaded woodpecker management and protection involving specialized management tactics in longleaf pine ecosystem. Co-management efforts with Florida Parks Service and Private Sector.
- **04/17/2017** Longleaf Pine restoration sites, South Carolina: Lab research (fuel sampling for moisture content, fire severity) and employing mechanical management in real time with South Carolina DNR (Jonny Stowe) and Fish and Wildlife Service. Work with wildlife biologist on invasive species management in longleaf pine stands
- **09/01/17** Prescribed burning experience in in a multitude of ecotones throughout Wisconsin-Lab work including fuel and soil sampling - Skilled at timber and plant assessment in field and with remote sensing apparatus, Took Vascular Plant Taxonomy and Range Management
- **01/03/2018** In depth Ornithology winterum dealing with taxonomy and phenology of the birds of the world. Bird banding for the BBL (national bird banding lab) including training and banding of raptors
- **02/12/2018** 40 acre barrens planting, assisted in species selection
- **03/05/2018** Marking training for both Deer management and Silviculture, and combinations of both, including work with DNR DMAP deer program.
- **03/2018** Course in Advanced Fire Ecology, Data Analysis and Forest Statistics
- **04/1/2018** Spokesperson for multiagency timber project for barrens and riparian restoration interviewed on local news channel.

- **12/2018** Restoration and management of one of Wisconsin's last effigy mound complexes including heavy machine operation, fuels reduction and Rx burn planning
 - **09/2019** Consultant on NRCS Prairie Burns in Central Wisconsin
 - **01/2020** Consultant for Boys and Girls Club for demonstration forest, aided in assembly of \$50,000 grant for projects, worked with large non-profit on other planning activities
 - **09/2020** Received 5th outreach grant from Thrivent Financial, grant topics included preventing food deserts, Natural resources books and school supplies for students (twice), small business outreach, and Wildland Firefighter appreciation dinner
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Extracurricular Teaching Opportunities

- **09/2018** Chainsaw safety head student instructor. Instructed 60 college students basic falling skills and safety methodology
 - **11/21/17** S211 Wildland Pump Operation. Pump operator and Instructor
 - **03/10/15-10/30/2019** S130/130 Wildland Fire Instructor
 - **02/01/2018** Restoration Methods, forb and native grass seeding education, topics included even seed spread methods and species selection
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Positions Held in Student Life

- **10/2017 - 12/2018** Student Representative for College of Natural Resources Guild
 - **01/2017 - 12/2017** Public Information's Officer, UWSP Fire Crew
 - **09/2018 - 12/2018** Student Advisor, UWSP Fire Crew
 - **04/2017 - 04/2018** Vice President, Phi Sigma Phi Nationally Recognized Philanthropic Fraternity
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Spatial Training

- Education in leading GIS workflows via advanced Esri Training
- Use of point cloud-based mapping software such as Pix4D and Agisoft Pro
- Use of Remote Sensing appearance to identify potential management areas, work plan, tree ID and management through time (1937-2018 air photos)
- Proficient in ArcGIS, Xmap, CFTERS, Google Earth Pro, and other popular mapping software
- Mapped complete management acreage of 2018-2019 by Adams County NHC, most work was done to keep accurate herbicide totals

Statistical Analysis

- Proficient in R, including liner mixed modeling, neighborhood modeling, generalized liner models
- Four statistical analysis biased courses and labs; Forest Mensuration, Forest Biometry, Advanced Fire Ecology, and Ecological Monitoring

Misc. Skills

- COVID-19 Vaccinated
- Excellence in interpersonal communication
- SafeZone and LGBTQ+ certified training
- Small engine mechanic
- Diesel mechanic
- Tree and plant ID
- Advanced tree faller
- Capable of accurate independent plant survey and transect work
- CPR First Aid
- Off road/Overland Driving and Navigation using GPS/Maps/LatLong/UTM
- Telemetry/Collaring/Banding
- Wildlife Surveys/Bird Surveys
- Wildlife Handling/Sexing
- Habitat Survey using Plot and Plotless Sampling methods
- Forestry skills; Basal Area, Tree value, Aging, Stand Density, Trees Per Acre
- Skilled in Excel, Collector, Stand data, and Esri Software
- Stakeholder/Public interactions and Education