

OHIO SENATE

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STATE OF OHIO

# Executive Department

OFFICE OF THE GOVERNOR

*Columbus*

I, Mike DeWine, Governor of the State of Ohio, do hereby appoint Daniel Arthur Yaussy, Democrat, from Sunbury, Delaware County, Ohio, as a Member of the Forestry Advisory Council for a new term beginning March 10, 2023 and ending at the close of business February 27, 2027, replacing Daniel Arthur Yaussy, whose term expired.



IN WITNESS WHEREOF, I have hereunto subscribed my name and caused the Great Seal of the State of Ohio to be affixed, at Columbus, this 10th day of March in the year of our Lord, Two Thousand and Twenty Three.

*Mike DeWine*

Mike DeWine  
Governor

## Curriculum Vitae

Daniel Arthur Yaussy  
5051 North Galena Road  
Sunbury, OH 43074

Tel: 740-740-6255  
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### Educational Background

College degrees

- 1984 Master of Science, The Ohio State University, Theoretical Statistics
- 1978 Master of Science, Virginia Polytechnic Institute and State University, Forest Biometrics
- 1976 Bachelor of Science, The Ohio State University, 1976, Forest (Industrial) Management

### Professional Experience

- 2013 – 2022 Emeritus Research Forester, Northern Research Station, Delaware, Ohio
- 2013 – 2019 Adjunct Lecturer, The Ohio State University, Columbus, Ohio
- 2007 – 2012 Research Forester, Northern Research Station, Delaware, Ohio
- 1999 – 2007 Supervisory Research Forester, Northeastern Research Station, Delaware, Ohio.
- 1981 – 1999 Research Forester, Northeastern Forest Experiment Station, Delaware, Ohio.
- 1979 – 1980 Research Forester, Southern Forest Experiment Station, Crossett, Arkansas.
- 1978 Research technician, Virginia Polytechnic Institute and State University, Blacksburg, Virginia.
- 1976 – 1978 Research Assistant, Virginia Polytechnic Institute and State University, Blacksburg, Virginia.

## **Professional Activities and Recognition**

### **Society and Professional Activities**

Society of American Foresters (SAF), 1979 – present; Ohio Chapter offices held: Chair, 2002; Vice Chair, 2001; Membership Chair, 1999 – 2000; Secretary/Treasurer, 1996 – 1998; Executive Committee, 1996 – present; Policy Committee, 1994 – present; Science Chair, 2009 – present.

Fire and Fire Surrogate national study: Science and Management Integration Committee, 2001 – 2007; Proposal Committee, 1998 – 2001.

Ohio Certified Prescribed Fire Manager program. Program Development and Steering Committee, 1999 – present; Instructor, 2001 – 2012.

Chair of Raccoon Ecological Management Area Research Advisory Committee, 2005 – 2010.

Member of the Executive Committee of the Consortium of Appalachian Fire Managers and Scientists, 2010 – present.

Member of Vinton Furnace State Experimental Forest Research Advisory Committee, 2011 – 2012; Chair of Research and Monitoring Subcommittee, 2011 – 2012; Member of Education and Demonstration Subcommittee, 2011 – 2012.

Member of International Association of Wildland Fire, 2005 – present.

Member of Association for Fire Ecology, 2005 – present.

Forest Resources Systems Institute (FORS), 1986 – 1994; Offices held: Board of Directors, 1988 – 1991; Executive Committee, 1988 – 1990; Secretary/Treasurer, 1988 – 1990.

### **Honors and Awards**

2009 Excellence in Science and Technology, USDA Forest Service, Northern Research Station.

2007 Elected Fellow of the Society of American Foresters.

2006 Buckeye Valley Local Schools Presidents Council Baron Award of Excellence

2003 Ohio Society of American Forester Outstanding Member Award – for outstanding contributions to the Society and to Ohio Forestry

- 2002 USDA Forest Service - Partnership Award – for outstanding service and dedication to conservation stewardship on the national forests.
- 2001 USDA Forest Service – Excellence in Customer Service.
- 2000 USDA Forest Service – Certificate of Appreciation – in special recognition for your exemplary effort to strengthen the collaboration between the scientists of the northeastern Research Station and the scientists of the Polish Ministry.
- 1996 Delaware County 4-H – Certificate of Thanks – for service as a Resource Consultant.
- 1995 The Ohio State University, Science and Mathematics Network, Ohio Department of Natural Resources – Certificate of Recognition – for demonstrating innovation and commitment through Partnering for Elementary Environmental Science.
- 1992 USDA Forest Service – Certificate of Appreciation – for outstanding effort in the promotion and presentation of Forest Service Civil Rights / Wellness activities to NE and NA employees.
- 1987 USDA Forest Service – Certificate of Appreciation – for two years of dedication and commitment to the advancement of Civil Rights at the Station and Area as a member of the NE/NA Civil Rights Action Committee.
- 1986 USDA Forest Service - Certificate of Merit - for designing, coordinating, and overseeing the installation of the Data General computer system at the Delaware facility.

**Invited Presentations (selected)**

- 2014 SENR Capstone Course. Ohio Society of American Foresters Summer Meeting, Mansfield, OH.
- 2009 Fire Management for Oak Restoration. Region 6 Vegetation Management Conference, Vancouver, WA.
- 2008 Hardwood tree mortality modeling considering climate change. Shepherdstown, WV.
- 2007 The How and Why of oak dominance in the central hardwoods region of the eastern United States of America. 4th International Fire Ecology and Management Congress, Savannah, GA.
- 2004 Implementation of the fire and fire surrogate study, a national research effort to evaluate the consequences of fuel reduction treatments. International Union of Forest Research Organizations - Balancing ecosystem values: innovative experiments for sustainable forestry. Portland OR.

- 2003 Fire: Threat or Tool in Eastern Hardwoods. Hardwood Research Symposium, Scottsburg IN.
- 2002 Why Burn: Ecological Reasons for Use of Prescribed Fire in Ohio. Ohio Woodland Owners Workshop. Jackson, OH.
- 1998 The Effects of Global Climate on Teleconnections, Fire History, and Tree Growth. Graduate Seminar. The Ohio State University, Columbus, OH.
- 1997 Restoration of oak-hickory ecosystems using prescribed fire. Wayne National Forest Community of Interest meeting, Oak Hill, OH.
- 1995 Mortality patterns in oak forests along a climatic and acidic deposition gradient. Northern Global Change Program meeting, Pittsburgh, PA.
- 1991 Tree, Log, and Lumber Quality of Eastern Hardwoods. Pacific Rim Forestry: Bridging the World. 1991 SAF National Convention, San Francisco, CA.
- 1990 Overview of the Forest Service. Lecture: Biology class. Ohio Wesleyan University. Delaware, OH.
- 1989 Evaluating standing timber using STUMP. Hardwood Research Council. Merrimac, WI.
- 1988 Developing and Using Computer Software for Forestry Applications. Lecture: Forest Resource Management, The Ohio State University. Columbus, OH.

### **Significant Scientific Accomplishments and Contributions**

The quality measures used in appraising standing timber (tree grades) are not those used in a mill yard (log grades). It is very ineffective to attempt to apply log grades to standing trees and a sawmill operator cannot use tree grades to evaluate mill yard inventory. Therefore, the incumbent developed a two stage estimation process, using dbh, merchantable height and tree grade to predict the actual number of logs by log grade that will be bucked from a tree. The first stage utilizes multivariate regression equations to estimate the volume by log grade contained in an individual tree. The next stage applies discriminate functions to determine the numbers of logs by log grade for that tree. These species specific equations are incorporated into STUMP, a timber inventory and appraisal computer program developed by the scientist and his colleagues; and "Cruising for Grade", another timber inventory computer program developed by D. Monteith. J. Baumgras uses these equations in APTHIN, which evaluates utilization alternatives for thinnings in Appalachian hardwood stands and to help perform an identification and evaluation of wood utilization options under ecosystem management regimes in the Appalachian hardwood region for the Forest Products Laboratory.

STUMP is an integrated software package that allows estimation of end product yield and value from hardwood timber cruise data or from scaled log data. It consists of four modules and data entry routines which use standard timber cruise or log scale entries plus the quality measures of tree or log grade to estimate yield and value by log and lumber grade. The system utilizes existing tree and log quality models for predicting expected lumber yields. Newly developed models are used to predict merchantable log yields and potential veneer yields from tree cruise data. The first module of the system is used for woodland inventory and timber appraisal. Output consists of volume and value estimates by species and end product. The second module uses the same tree cruise data and estimates the size and grade of logs produced by each tree. The information is summarized by length, scaling diameter and log grade for each species along with an estimate of stumpage or delivered price. In the third module, log scale information from the second module or from actual log scale data will be used to maintain millyard inventory by quality classes and to estimate end product yields. The fourth module will monitor production and maintain end product inventory records. STUMP is a useful tool for anyone wishing to evaluate their timber resource. This includes landowners, service foresters, consultants, loggers, and sawmill managers. The development of this software was partially funded by a grant from FORS and was distributed by them.

Teleconnections between large-scale atmospheric circulation patterns and regional weather patterns might provide forest managers with an important planning tool. The scientist investigated these relationships for the Ohio River Valley, defined as the states of Illinois, Indiana, Kentucky, Missouri, Ohio, and West Virginia, and found little association between the El Niño/Southern Oscillation (ENSO) events and Palmer Drought Severity Index (PDSI, a measure of drought) in 93 years of data. However, there was a significant correlation between spring and fall fire seasons from 1970 through 1992 in Kentucky and variables constructed from PDSI and ENSO.

The endeavor to simulate the growth of trees in a forest has attracted scientists for at least two different reasons. Those interested in timber production usually had access to repeated measurements of variables from trees on permanent plots. Scientists interested in the plant processes and mechanisms involved in the growth and development of forests approached the matter with a view reflecting the influence of perturbations in light, climate, weather, and moisture availability on the growth of trees. Recognized deficits in both modeling approaches have caused many to reevaluate the worth of alternatives. The scientist has compared the ability of a forest succession model, ZELIG, and an empirically based growth and yield model, NETWIGS to predict the 30-year development of two plots in eastern Kentucky.

The incumbent is the leader of a team investigating the restoration of mixed-oak forest ecosystems in southern Ohio with prescribed fire and thinning. The team consists of scientists from the Forest Service, The Ohio State University, and Ohio University. This study is structured as a multidisciplinary, integrated study of many ecosystem attributes and processes. Scales of observations and analyses range from individual plants and animals to the landscape. The research objectives of this project are to determine ecological response of mixed-oak communities in southern Ohio to prescribed underburning. The ecosystem management goals and applications are: 1) to determine appropriate prescribed underburning regimes as management tools in restoring the structure, function, and much of the composition (fire-adapted

flora) to the mixed-oak forests of southeastern Ohio, and 2) to design and implement a monitoring program of fire effects and ecosystem sustainability. The scientist is responsible for monitoring the changes in growth and quality of the existing overstory in response to repeated underburning. This was part of a national team investigating the ability of mechanical removal of trees as a surrogate to fire effects on the ecosystem.

Individual-tree measurements have been collected periodically on sites established in Kentucky, New York, Ohio, and Pennsylvania to investigate the effects of thinning on the growth and yield of valuable hardwood species. These plots were installed between 1959 and 1985. The long-term characteristics of this data set of 47,853 trees allowed us to investigate potential climatic effects on the mortality of individual trees. Stand and tree measures of competition, monthly and annual temperatures, and precipitation were statistically assessed against mortality through proportional hazards Survival Analysis for 21 species groups. Competitive factors entered the models more consistently than climatic factors. The models produced were then run using future climate predictions from conservative and extreme general circulation model scenarios to estimate possible future hazard rates of mortality. These rates varied greatly based on species group and future climate scenario. The marginal effects of climate on tree mortality relative to competitive stresses, and the high variability of future climate projections, make it difficult to estimate changes in future risks of tree mortality due to climate change. However, the study reiterates that managing for healthier forests with less competitive stress will help mitigate the effects of climatic stress as well as many other stresses such as those caused by insects and pathogens.

### Significant Publications

- 1) Yaussy, DA; Iverson, LR; Matthews, SN. 2013. Competition and climate affects U.S. hardwood-forest tree mortality, with possible effects of climate change. *Forest Science*.
- 2) Hutchinson, Todd F.; Long, Robert P.; Rebbeck, Joanne; Sutherland, Elaine Kennedy; Yaussy, Daniel A. 2012. Repeated prescribed fires alter gap-phase regeneration in mixed-oak forests. *Canadian Journal of Forest Research*. 42: 303-314.
- 3) Schwilk, D.W.; Keeley, J.E.; Knapp, E.E.; McIver, J.; Bailey, J.D.; Fettig, C.J.; Fiedler, C.E.; Harrod, R.J.; Moghaddas, J.J.; Outcalt, K.W.; Skinner, C.N.; Stephens, S.L.; Waldrop, T.W.; Yaussy, D.A.; Youngblood, A. 2009. The national Fire and Fire Surrogate study: effects of fuel reduction methods on forest vegetation structure and fuels. *Ecological Applications* 19: 285–304.
- 4) Yaussy, Daniel A.; Nowacki, Gregory J.; Schuler, Thomas M.; Dey, Daniel C.; DeGayner, Eugene J. 2008. Developing a unified monitoring and reporting system: a key to successful restoration of mixed-oak forests throughout the central hardwood region. In: Deal, R.L., tech. ed. *Integrated restoration of forested ecosystems to achieve multiresource benefits: proceedings of the 2007 national silviculture workshop; 2007 May 7-10; Ketchikan, AK*. Gen. Tech. Rep. PNW-733. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station: 281-285.

- 5) Iverson, L.R.; Yaussy, D.A.; Rebbeck, J.; Hutchinson, T.F.; Long, R.P.; Prasad, A.M. 2004. A comparison of thermocouples and temperature paints to monitor spatial and temporal characteristics of landscape-scale prescribed fires. *International Journal of Wildland Fire* 13(3):1-12.
- 6) Yaussy, Daniel A., Hix, David M., Long, Robert P., and Goebel, P. Charles. 2004. 14th Central Hardwood Forest Conference. Gen. Tech. Rep. NE-316. Newtown Square, PA, U.S. Department of Agriculture, Forest Service, Northeastern Research Station.
- 7) Yaussy, D.A., Dickinson, M.B., Bova, A.S. 2004. Prescribed surface-fire tree mortality in southern Ohio: equations based on thermocouple probe temperatures. In 14th Central Hardwood Forest Conference. Eds. Yaussy, Daniel A., Hix, David M., Long, Robert P., and Goebel, P. Charles. Gen. Tech. Rep. NE-316, 67-75 [CD-ROM]. Newtown Square, PA, U.S. Department of Agriculture, Forest Service, Northeastern Research Station.
- 8) Gustafson, E., Nestler, J., Gross, L., et al. Evolving approaches and technologies to enhance the role of ecological modeling in decision making. In: *Ecological modeling for resource management*, edited by Dale, V.H. New York, NY: Springer-Verlag, 2003, p. 135-164.
- 9) Yaussy, D.A. 2000. Comparison of an empirical forest growth and yield simulator and a forest gap simulator using actual 30-year growth from two even-aged forests in Kentucky. *Forest Ecology and Management* 136: 385-398.
- 10) Yaussy, D.A., Iverson, L.R., and Prasad, A.M. 1999. Diameter-Growth Model across Shortleaf Pine Range Using Regression Tree Analysis. In *Empirical and process-based models for forest tree and stand growth simulation* Ana Amaro and Margarida Tome, comp. Edicoes Salamandra, Lisbon, Portugal pp. 479-498.
- 11) Yaussy, Daniel A. 1986. Green lumber grade yields from factory grade logs of three oak species. *Forest Products Journal*. 36(5):53-56.

### **Demonstrations and short-courses**

2009 – 2013 Ohio Oak SILVAH Workshop. Athens, OH.

2007 Fire in the Appalachians: What we know and what we think we know. Rx310: Fire Effects Training. The Nature Conservancy. London, KY.

2006 Ecological Impacts of Fuel Reduction: Fire and Fire Surrogate Study in Hardwood Ecosystems, Asheville NC.

2004 Virginia Tech School of Forestry Seminar, Blacksburg VA.

2004 Ohio State University Natural Resources Seminar, Columbus OH.



2003-2004 Ohio Parks and Recreation Association, Columbus OH.

2001-2004 Ohio Certified Fire Manager Training, Delaware OH.

2000 Workshop on Fire, People, and the Central Hardwood Landscape, Richmond KY.

1998 Overstory species associated with Integrated Moisture Index (IMI). 16th Annual Central States Forest Soils Workshop, Society of American Foresters, Nelsonville, OH.

1990 Forest Management Decision Support for the 1990's: Software Technology Transfer Conference. University of Wisconsin. Madison, WI.

1990 Assessing Tree value Using STUMP. Cruise and Cut-Out Workshop. University of Tennessee Agricultural Extension Service. Waynesboro, TN.

1988 Using STUMP. Microcomputers in Forestry. SAF Continuing Education Committee. Reynoldsburg, OH.

An important part of disseminating research results is through field tours and demonstrations of research findings at the Delaware Laboratory and Vinton Furnace State Experimental Forest. Yaussy has responsibility for conducting two to five tours annually. The size, composition, and technical expertise of these groups vary greatly. Many are highly skilled professionals representing private industry and various governmental agencies. Other groups are conservation minded laymen who are very influential in helping mold public opinion on controversial issues. Some are high school, or college students interested in conservation and forestry. Conveying research findings and forestry concepts to such a wide cross-section of individuals requires a high degree of skill in communication. Recent tours have included such groups as the Ohio Chapter SAF, National Forest staff from the Wayne and the Hoosier, Sierra Club, Ohio Farm Bureau, Appalachian Chapter of the American Forest and Paper Association, Society of Environmental Journalists, students from the University of Sweden, West Virginia University, University of Kentucky, Ohio State University, and Hocking College, and foresters from Russia and China. Although time consuming, direct personal contact is one of the most effective means for having research results and concepts applied in the field.

Yaussy was asked to be the instructor of ENR 3323, Forest Biometrics, and ENR 4900.02, Environment and Natural Resources Management for Forestry Fisheries and Wildlife: Capstone course, at the Ohio State University.

## GOVERNOR'S APPOINTMENTS TO BOARDS AND COMMISSIONS

**Appointment Date:** 3/10/2023

**Name of Appointee:** Daniel Arthur Yaussy  
**Address:** 5054 North Galena Road  
Sunbury, OH 43074  
Delaware County  
(H) –  
(W) –  
(M) – 7409726255  
(E) – danyaussy1@gmail.com

**Name of Commission:** Forestry Advisory Council  
Kim Berridge  
2045 Morse Road, Building D  
Columbus  
(614) 265-6877

**Term Begins:** 2/28/2023  
**Term Ends:** 2/27/2027  
**Party Affiliation:** Democrat  
**Senate Confirmation:** Appointed by the Governor, confirmed by the Senate  
**Financial Disclosure:** No disclosure required  
**Vice:** Daniel Arthur Yaussy