

An Assessment of Native Seed Needs and the Capacity for Their Supply

Committee

Susan P. Harrison

Chair

Dr. Susan P. Harrison is a Distinguished Professor in the Department of Environmental Science and Policy of the University of California, Davis. She was elected into the National Academy of Sciences in 2018 for her excellence in Environmental Science and Ecology. Harrison is a leader in the study of ecological diversity at different spatial and temporal scales, and of the mechanisms and processes that maintain diversity. Her work is of fundamental importance for understanding the impact of global change on ecological communities, and for conservation biology from local to global scales. Dr. Harrison received her B.S. in 1983 in Zoology and M.S. in 1986 in Ecology from University of California, Davis, and Ph.D. in 1989 in Biology from Stanford University.

Delane Atcitty

Member

Delane Atcitty is Executive Director of the Indian Nations Conservation Alliance, an organization that connects underserved native ranchers and farmers to federal agencies and Tribal Leadership that share an interest in conservation and natural resource management. Mr. Atcitty also is the principal of Arrowhead Resource Management, LLC, which provides ranch management and agri-business consulting services to native communities. Previously, he was a Natural Resource Specialist at the Department of Interior's Bureau of Indian Affairs, a Rangeland Specialist with the Bureau of Land Management, and before that, a Rangeland Specialist for the Nature Conservancy SVR Ranch, overseeing management of cattle and bison on the ranch. Mr. Atcitty is a Board member of the Navajo Agricultural Products Industry (NAPI), Holistic Management International Board of Director, National Grazing Lands Coalition Advisory Board Member, and Past Chair of the Native American Rangeland Advisory Committee of the Society for Range Management. Mr. Atcitty received a Bachelor of Applied Science (B.A.Sc.) degree in Agribusiness in 2007 from Oklahoma Panhandle State University, and in 2009 a Masters in Ranch Management from Texas A&M University's King Ranch Institute.

Rob Fiegenger

Member

Rob Fiegenger is an independent consultant who previously served as Director of Plant Materials at the Institute for Applied Ecology. Mr. Fiegenger led the Institute's native seed collection, production, and distribution activities, including participation in Seeds of Success, the Willamette Valley Native Plant Partnership, and other regional plant materials efforts. He served as director of the Native Seed Network from 2004 to 2020 and produced the series of National Native Seed Conferences from 2010-2017. Previously he worked for Oregon State University's Institute for Natural Resources, the US Forest Service, and the National Park Service. He currently serves as chair of the Society for Ecological Restoration's International Network for Seed-based Restoration and is a member of the IUCN Species Survival Commission Seed Conservation Specialist Group. He holds a BS in Natural Resources Management from Humboldt State University and a MS in Ecology from University of California, Davis.

Rachael E. Goodhue

Member

Rachael Goodhue is Professor and Department Chair in Agricultural and Resource Economics at University of California, Davis. She earned her Ph.D. and M.S. from University of California, Berkeley and her B.A. from Swarthmore College. Her research interests include agricultural marketing and organization, agri-environmental policy, pest management, regulation, and contract design. She is on the editorial boards of Agricultural and Food Economics, California Agriculture, and Review of Industrial Organization. Currently she teaches intermediate microeconomic theory for undergraduates in the Managerial Economics major, and courses on agricultural markets and the economics of California agriculture for graduate students. Goodhue works regularly with the California Department of Food and Agriculture to assess the economic impact of proposed pesticide regulations. Goodhue serves on the California Walnut Board and California Walnut Commission. She is active in university service, and served as Chair of the Davis Division of the Academic Senate from 2016-2018.

Kayri Havens

Member

Dr. Kayri Havens is the Director of Plant Science and Conservation and Senior Scientist at the Chicago Botanic Garden. She is also an Adjunct Professor of Biology at the University of Illinois-Chicago and at Northwestern University. Previously Dr. Havens was a Conservation Biologist at the Missouri Botanical Garden. Since 1999, she has been a member of the Conservation Committee of the American Public Gardens Association and served as Chair from 2006-2008. She is a board member and treasurer of Botanic Gardens Conservation International-US, co-director of the citizen science program Budburst, and a member of the IUCN Seed Conservation Specialist Group. Dr. Havens is also a past president of the Illinois Native Plant Society and founder of the Midwestern Rare Plant Task Force. She has received many awards including the American Horticultural Society Liberty Hyde Bailey Award in 2019 and the Secretary of the Interior's Partners in Conservation Award in 2010. Dr. Havens received her B.A. and M.S. in Botany from Southern Illinois University and Ph.D. in Biology from Indiana University.

Carol House

Member

Ms. Carol House is an independent consultant who served as a senior program officer for the National Academies of Sciences, Engineering, and Medicine's Committee on National Statistics. Prior to the National Academies, she held several positions at the National Agricultural Statistics Service of the U.S. Department of Agriculture, including deputy administrator for programs and products, associate administrator, director of research and development, and director of survey management. She also served as chair of the Agricultural Statistics Board. She has provided statistical consulting on sample surveys in China, Colombia, the Dominican Republic, and Poland. She is a fellow of the American Statistical Association and an elected member of the International Statistical Institute. Her graduate training was in mathematics at the University of Maryland.

Richard C. Johnson

Member

Dr. Richard C. Johnson is currently an adjunct professor at the Regional Plant Introduction Station, Washington State University. He is also a retired Research Agronomist from the U.S. Department of Agriculture – Agricultural Research Service where he worked for over 30 years on plant germplasm conservation and utilization. From 2005 to 2016, Johnson led a cooperative program between the National Plant Germplasm System (NPGS) and the BLM-Seeds of Success (SOS) program. As a result, more than 10,000 new native plant collections have been acquired for conservation, and thousands of native seed collections have been distributed to private and public entities for research and development. He has also worked extensively with the U.S. Forest Service, BLM, and the Great Basin Native Plant Project for enhancement and utilization of native plant materials. Dr. Johnson has published numerous scientific articles on adaptation of key native species and has developed seed zones to guide the use of germplasm for restoration projects. In 2010 Johnson was a recipient of the US Department of Interior “Partners in Conservation Award” through Ken Salazar, then Secretary of the Interior. In 2014, he chaired the Interagency Committee to “Identify Research Needs and Conduct Research to Provide Genetically Appropriate Seed, and to Improve Technology for Native Seed Production and Ecosystem Restoration.” This contributed to the “Plant Conservation Alliance’s National Seed Strategy for Rehabilitation and Restoration, 2015-2020.” Dr. Johnson received B.S. degrees in Wildlife Biology (1974) and Agronomy (1976), and a M.S. in Agronomy in 1978, all from Washington State University. In 1981 he received a Ph.D. in Agronomy from Kansas State University.

Elizabeth Leger

Member

Dr. Elizabeth Leger is a Professor in the Department of Biology at the University of Nevada, Reno (UNR), where she has been faculty since 2006. She got her PhD in plant ecology from UC Davis, and did a post-doc focused on invasive plants at SUNY Stony Brook. Her current research focuses on native plant ecology and restoration in invaded areas of the Great Basin, and she has advised multiple post-docs, graduate students, and undergraduate students studying the plants of the Great Basin. Dr. Leger served on the UNR faculty senate as the representative for the College of Agriculture, Biotechnology, and Natural Resources for a three-year term, and served a three-year term as the associate director for the Ecology, Evolution and Conservation Biology graduate program. She serves the greater scientific community with review and editorial work, and has served on multiple grant review panels for federal organizations including the USDA and NSF. In addition to her work in plant ecology and restoration, Dr. Leger is the co-creator and director of the University of Nevada, Reno Museum of Natural History, which is a major research, teaching and outreach institution at UNR.

Virginia Lesser

Member

Dr. Virginia (Ginny) Lesser is Professor of Statistics and Director of the Survey Research Center at Oregon State University. She conducts research on survey methodology, applied statistics, environmental statistics, and ecological monitoring. Dr. Lesser currently works on survey research examining methods to improve response rates through using multiple contact modes, such as Web and mail, and other methods incorporated during administration of the surveys. She has designed and administered over 200 surveys conducted by the Survey Research Center at Oregon State University. She is a fellow of the American Statistical Association and an elected member of the International Statistical Institute. She has served on several National Academies committees including: the Committee on Capitalizing on Science, Technology, and Innovation: An Assessment of the Small Business Innovation Research Program-Phase II; Panel on the Review of the Study Design of the National Children's Study Main Study; Panel on Survey Options for Estimating the Illegal Alien flow at the Southwest Border; Panel to Review the Occupational Information Network; Committee to Assess the Minerva Research Initiative and the Contribution of Social Science to Addressing Security Concerns; and Committee on the Review of the National Institute of Safety and Health/Bureau of Labor Statistics Respirator Use Survey Program. She has a Doctorate in Public Health in Biostatistics from the University of North Carolina, Chapel Hill.

Jean Opsomer

Member

Dr. Jean Opsomer is a vice president at Westat in Rockville, Maryland. He was formerly a professor and department chair in the Department of Statistics at Colorado State University, as well as a faculty member at Iowa State University. His research focuses on shape-constrained and nonparametric methods in survey estimation and on several interdisciplinary projects with survey components on a range of topics. He is a member of Statistics Canada's Advisory Committee on Statistical Methods. He previously served on the Bureau of Labor Statistics' Technical Advisory Committee and the USDA's Advisory Committee on Agricultural Statistics. He has served on two National Academies' study committees, including the Panel to Review USDA's Agricultural Resource Management Survey, and the Panel on Improving Data Collection and Reporting about Agriculture with Increasingly Complex Farm Business Structures. Opsomer is an elected fellow of the Institute of Mathematical Statistics and the American Statistical Association, as well as an elected member of the International Statistical Institute. He holds a Ph.D. in statistics from Cornell University.

Nancy Shaw

Member

Dr. Nancy Shaw is currently an Emeritus Scientist with the US Forest Service's Rocky Mountain Research Station in Boise, Idaho. From 1985 until her retirement in 2013 she was a Research Botanist. Her research over the last 35 years has focused on native plant materials development and restoration of riparian and terrestrial systems in the Intermountain West. From 2003 to 2013, she was Team Leader for the Great Basin Native Plant Project, an interdisciplinary program to develop seed transfer guidelines, seed technology, seed production protocols, and improved methodology for re-establishing native plant communities. The project involved collaboration with 20 federal, state, and private cooperators, including researchers, academics, the native seed industry, practitioners, and students. She is currently a Board member of the Society for Ecological Restoration (SER) and Chair-elect for the International Network for Seed-based Restoration (INSR). She has served as an associate editor of the *Native Plants Journal* (2005-2014), a member of the Steering Committee for the National Seed Strategy (2014-2015), and is currently an associate editor of the INSR's International Standards for Native Seeds – Supply, Storage and Use. Awards include the National Grasslands Research Award (USDA FS and NRCS, 2007), National Service First Award (USDA FS, co-awarded, 2007), National Rangeland Management Award for Research (USFS R&D, 2009), National Plant Materials Development Award (USDA FS, 2013), and the Asa Gray Career Achievement Award (USDA FS, 2013). Dr. Shaw holds a Ph.D. in Crop Science with a Seed Science emphasis from Oregon State University.

Douglas E. Soltis

Member

Dr. Douglas E. Soltis is a Distinguished Professor in the Florida Museum and the Department of Biology, University of Florida. Prior to moving to Florida in 2000, he was Professor of Botany at Washington State University. Research interests include building the tree of all life, flowering plant evolution, and genome doubling (polyploidy). He was born in Sewickley, Pennsylvania. He graduated from the College of William and Mary with a B.A. in Biology in 1975. He received his Ph.D. in 1980 from Indiana University. He was named a Distinguished Professor at the University of Florida in 2008. He was president of the Botanical Society of America (1999-2000). He has received the Centennial Award and the Distinguished Fellow Award from the Botanical Society of America. With Pam Soltis, he received the Dahlgren International Prize in Botany (2002) and the Asa Gray Award in Plant Systematics (2006) and Darwin-Wallace Medal (2016). With coauthors P. Soltis, P. Endress, M. Chase, he received the Stebbins Medal in 2006 (for Phylogeny and Evolution of Angiosperms). He was elected to the American Academy of Arts and Sciences and to the National Academy of Sciences in 2017.

Scott Swinton

Member

Dr. Scott Swinton is a University Distinguished Professor in the Department of Agricultural, Food, and Resource Economics at Michigan State University. His economic research looks at agriculture as a managed ecosystem, focusing on management and policy analysis for enhanced ecosystem services. He concentrates on problems involving crop pest, pollination, and nutrient management; precision agriculture; resource conservation; bioenergy crop production; and management of risks to human health and income. Besides his work on U.S. farming, he has extensive experience with agricultural and natural resource management in Latin America and Africa. He teaches undergraduate managerial economics and graduate research design and writing. He is a Fellow in the Agricultural and Applied Economics Association and served as its President in 2018-19. MSU granted him its William J. Beal Outstanding Faculty award in 2015. Dr. Swinton served on the NAS-IOM Committee on a Framework for Assessing the Health, Environmental, and Social Effects of the Food System and the NAS Committee on Status of Pollinators: Monitoring and Prevention of their Decline in North America. He holds a B.A. from Swarthmore College, a M.S. from Cornell University, and a Ph.D. from the University of Minnesota.

Edward Toth

Member

Edward Toth is founder and director of New York City Parks' Greenbelt Native Plant Center (GNPC), one of the U.S.'s oldest and largest municipally owned native plant nurseries. The GNPC, through its programs and partnerships, works towards the conservation of the region's native flora. In 2012, he initiated the Mid-Atlantic Regional Seed Bank, a partner of the national Seeds of Success program, which promotes the use of ecoregionally-based seed collection and banking in support of meeting the region's needs for genetically appropriate wild seed. He views seed as a critical natural resource and its wise management as essential to sustainable land management and mitigating climate change. Ed joined NYC Parks in the mid 1980's where he guided the transformation of the woodlands of Prospect Park from a degraded, denuded landscape into a thriving native ecosystem. In 2012, he received the Thomas Stofka award from NYC Parks. In 2018, he was awarded the Sloan Public Service Award from the Fund for the City of New York.

Stanford A. Young

Member

Dr. Stanford A. Young is Professor Emeritus of Plant Science at Utah State University (USU) in Logan, Utah. He led the seed certification and foundation seed program at USU, and was instrumental in developing native plant germplasm seed certification requirements and standards (both wildland collected and field produced) for the Association of Official Seed Certifying Agencies (AOSCA). He is an Honorary Member of AOSCA. Receiving B.S. and M.S. degrees from USU, Dr. Young attended Oregon State University in Corvallis, Oregon and earned a Ph.D. in Plant Pathology and Plant Breeding in 1977. He worked as a Biochemical Field Specialist for PPG Industries, Inc. based in Fresno, California and was part time faculty member at California State University, Fresno, before accepting the position as Seed Certification Specialist in the Plants, Soils, and Climate Department at USU in 1980. Dr. Young served as Chair of AOSCA National Variety Review Boards for Grass and Alfalfa. He was appointed to the Team for DOI-BLM Core Indicators for Monitoring, Plant Materials, and Data Standards in 2011. He is the author of many scholarly publications, newsletters, and bulletins regarding seed certification and seed quality for agronomic crops and native plants. He presently serves as Treasurer for the Great Basin Chapter of the Society for Ecological Restoration.

Roberta A. Schoen

Staff Officer