



Susan P Harrison

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Bio:

Dr. Susan P. Harrison 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.

Abstract:

The nation needs native plants, which are central to restoring critical natural landscapes after wildland fires, hurricanes, droughts, floods, and other natural disasters, including the damage caused by invasive plant and animal species. The demand for native plant seeds is coming from both the public and private sectors to support essential habitat for wildlife, including pollinators; to redress the impacts of man-made disturbances such as those caused by mining, drilling, logging, overgrazing, development, and road construction; and, for “green” infrastructure and urban landscaping.

Currently, the manner in which a critical need for native plants is identified and matched with a supplier of those seeds is ad hoc, creating an unstable market. The number and types of different public and private entities that have a need for native seeds has never been well documented, nor has the scale and diversity of native seeds uses. On the supply side, there are informal, formal not-for-profit, and commercial seed collectors, producers, and sellers. The fragmented system sometimes leads to shortages due to predictable, but large-scale disaster events (e.g., wildfire) that consume existing supply, and also because having a supply of the “right” seed on hand requires advanced planning for which barriers exist. The lack of a clear picture of the seed supply makes it difficult to estimate the nation's true capacity to provide native seeds on a reliable basis, leading to a continual cycle of substitution.

The first goal of the National Seed Strategy (developed by the Plant Conservation Alliance and through an MOU of 12 federal agencies) is to assess the national public and private demand for native plants, and the existing and potential capacity to supply them. The National Academies of Sciences, Engineering, and Medicine is currently in the first phase of a two-part project to provide the holistic view needed to put the nation's native seed supply on a more solid foundation. In the next phase, input from organizations (states, land trusts, non-profits) that needs seeds for ecological restoration is needed. This presentation will aim to make the case for getting those entities to participate in the assessment.