

Master of Landscape Architecture Program The City College of New York 141 Convent Avenue 3M24 New York, New York 10031 +1 (212) 650 5937 https://ssa.ccny.cuny.edu/

15 February 2023

LaGasse Medal Nomination c/o Honors and Awards 636 Eye Street, NW Washington, DC 20001-3736

RE: Nomination of Professor Steven Handel for the 2023 LaGasse Medal

To the Honors and Awards Selection Committee:

I write with great pleasure to support the nomination of Distinguished Professor Steven N. Handel, PhD, Hon. ASLA, as a candidate for the 2023 LaGasse Medal for a non-landscape professional. Dr. Handel's achievements to improve our nation's natural resources and public landscapes are expressed over many years in five different arenas that I will outline here:

#### Managing a public landscape

Dr. Handel has served as the Director of Rutgers University's Hutchison Memorial Forest for six years. This well-known primeval forest is one of the few extant virgin forests in the United States, uncut since European settlement. It has been a major site for woodland ecology research for almost 100 years, with a long list of scientific publications explaining growth processes and forest structure (see www.hutcheson.rutgers.edu). When Dr. Handel assumed the directorship of the Hutchison Memorial Forest, it was being devastated by a superabundance of deer, compromising the historic regeneration process. Dr. Handel raised money for and constructed a two-mile long, 10-foot-high deer fence to arrest this devastation and initiate the process of returning the forest to a sustainable structure. His management has been critical to saving this important stand, and his work demonstrates to other land managers how historic ecological processes can be reestablished in a stress-filled world

In addition to this work at his home university, he has supervised research on the management of other public landscapes, particularly in the City of New York. His work on public park forest management in New York was recognized by an ASLA National Honor Award in Research in 2015.

#### Research into improving our understanding of landscape management

Dr. Handel's formal training is in plant ecology, particularly plant population biology. He has studied and published in areas such as pollination, seed dispersal, plant life histories, and the interplay of different species within natural landscapes. All these research areas are important for conserving and managing our natural resources. As his focus evolved to urban natural resources, he directed his attention and research projects on public parks. For example, with long-term support from the National Science Foundation, he studied ways of restoring forested natural resources at the Fresh Kills landfill on Staten Island, which is now being transformed into a major New York City public park. For the National Park Service, he has done years of research at the Gateway National Recreation Area and the Morristown National Historical Park. These are public landscapes that are used by many thousands of people every year. At those two public parks he explored the impact of invasive species, major storms, and sea level rise on the vegetation so as to underlie an informed modern management of these vast sites. Major research publications have come from these studies, some listed below. The allocation of green spaces in America's urban areas has increased as we understand the importance of natural areas and public spaces for public health. Dr. Handel's research has led to foundational findings that improve the quality of landscape architecture in urban initiatives.

These efforts together were recognized by another ASLA National Honor Award in Research in 2009. In 2011, the Society for Ecological Restoration presented Dr. Handel with their highest international research award, the Theodore M. Sperry Award, "for pioneering work in the restoration of urban areas."



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#### Writing about ecological restoration and design

In addition to his more scientific writing on management and restoration techniques for natural resources, over the past 13 years Dr. Handel has published a long series of essays to deepen the partnership between ecology and landscape design to increase conservation of biodiversity. He has written almost 50 editorials in the professional journal *Ecological Restoration*, a publication of the University of Wisconsin Press. In addition, Dr. Handel initiated a new feature for that journal, "Design Approaches to Ecological Restoration." Here, he invites landscape architects to present work that has a strong ecological component and then asks professional ecologists to critique the project. This builds the interdisciplinary links between these two professions. This novel effort can strengthen natural resources at a broad scale. The ASLA presented Dr. Handel with its Honor Award in Communications in 2015 for this initiative. Last year, he co-edited a special issue on "Designing Landscapes for People and Insects" to present ways in which landscape architects can improve the conservation of insect life, so threatened now and so important for the functioning of our natural landscapes. He has also won ASLA state awards in Communications for ecological signage and podcasts that explain to the public the importance of natural resources to our society. These writings have a broad national audience and have continued to grow his influence on our profession's role in keeping public landscapes environmentally healthy.

#### Teaching at major universities

As a Distinguished Professor at Rutgers University for over thirty years and as a Visiting Professor at Harvard University's Graduate School of Design for four years, Dr. Handel has taught courses in ecological design, plant ecology, and restoration ecology to both landscape architecture graduate students and to applied ecology graduate students. His teaching evaluations throughout his career have been outstanding. In his courses, he has emphasized the ecological principles that should be expressed in landscape design to improve our nation's natural resources and biodiversity through intelligent and sustainable plant palettes and landscape massing. In addition, he has made academic ecologists aware of the important role they can play in helping design professionals increase the environmental value their projects. This is a two-way communication, as ecologists seek new opportunities in the design world and landscape architects better learn the value of incorporating ecological theory and principles in their work. Dr. Handel has supervised 20 graduate degrees in these fields and has been an invited lecturer to over 200 universities and professional meetings throughout the world. He has been a popular panelist at several ASLA National Conferences as well.

In these ways he has encouraged a close link between landscape design and ecology to a new generation of practitioners.

#### Participating in the ecological design of public landscapes

Dr. Handel's work on managing the Rutgers Forest, research, writing, and teaching led him to translate these experiences into ecological design improvements, furthering his mission to conserve natural resources. He approached and was welcomed by a group of leading landscape architecture firms (including Sasaki, Michael Van Valkenburgh and Associates, W-Architecture and Landscape Architecture, Ken Smith Workshop, and Reed Hilderbrand Landscape Architects) to add ecological depth to their public landscape designs. He has participated in ecological improvements for sites such as Brooklyn Bridge Park in New York City, Fernbank Museum in Atlanta, St. Patrick's Park in Calgary, the Buffalo Riverline, and the Orange County Great Park. It is uncommon for an academic scientist to play a close participatory role in landscape design, yet this will hopefully become much more common in the future as his work is recognized. Dr. Handel has received ASLA National Honor Awards in Analysis and Planning twice, ASLA state chapter awards (from GA, NY, CA), and received the rare honor of being made an Honorary Member of ASLA in 2008.

With each of the projects where he has participated, Dr. Handel finds ways to increase ecological structure and function that meshes with landscape architectural design needs. Each of these public parks plays an important role in the conservation of natural resources as links or building blocks for sustainable populations of plants and animals and as corridors for movement in a time of rapid climate change. He notes that it was his experience in collaboration which led him to accept the teaching role at Harvard University's Graduate School of Design in the Department of Landscape Architecture, so that the next generation of young landscape architects can better appreciate the role of scientific findings in public landscapes.



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#### Some personal notes

Dr. Handel's research, writing, and guest presentations have been critical in supporting my work with graduate landscape architecture students at the City College of New York. City College's Spitzer School of Architecture is well known as the only public school of architecture in New York City, but we also are home to the city's only accredited landscape architecture program. The majority of our diverse graduate landscape architecture students hail from the five boroughs of New York—and like Handel himself, they are activist, environmentalist, and fully engaged in the rich narrative of urban ecology. In addition, our students delight in speculating upon novel and inventive ecological futures. Handel's visits with both my students and faculty colleagues over several years have always been laced with his deep knowledge and wit, as well as his creative mind. During a recent discussion of "invasive" plant species present on Staten Island, a student's presentation of *Artemisia vulgaris* led Dr. Handel to divulge that mugwort bagels could be purchased at a marketplace in Seoul, Korea, along with a tale of the "hero" capacity of *Solidago sempervirens* to police the spread of the "villain" *Artemisia* at coastal margins. Indeed, nature and culture are fully entangled in Dr. Handel's ecological worldview.

I have assigned many of Dr. Handel's critical research papers to my landscape students over the years (several of which I have listed below), and his ongoing scholarly work on restoration ecology has been particularly applicable to our studio research and design projects examining closed landfills and former industrial sites, particularly at waterfront margins. My own collaborative work on marsh restoration with the New York District of the US Army Corps of Engineers has been further informed by Dr. Handel's research. I have noted above his valuable work with the landscape architecture program at Harvard University's Graduate School of Design, where he served as Visiting Professor for four years. His recent work with GSD students to collect, measure, and display horseshoe crab carapaces from New York's Jamaica Bay (the neighborhood where he grew up) was particularly compelling and indeed, poignant.

#### Representative publications

Handel, S. N. 1997. The role of plant-animal mutualisms in the design and restoration of natural communities. Pages 111-132 in: *Restoration Ecology and Sustainable Development*. K. M. Urbanska, N. R. Webb, and P. J. Edwards, editors. Cambridge University Press, Cambridge.

Handel, S. N., M. J. Mitrovich, E. Hook, and R. Aicher. 2009. Ecological Guidelines - Park Ecology and Natural Habitats. Orange County Great Park Corporation, Irvine, CA. 322 pages.

Handel, S. N. 2013. Ecological restoration foundations to designing habitats in urban areas. Pages 169-186 in: *Designing Wildlife Habitats*. J. Beardsley, ed., *Garden and Landscape Studies*, Dumbarton Oaks Research Library, Harvard University Press, Cambridge.

Handel, S.N. 2018. The digital and the organic. *Ecological Restoration* 36(3):167-168.

Handel, S.N., G. Ford, and B. Hensold. 2019. Resilience and coastal ecosystems: three typologies, three design approaches. Pages 195-208 in: *Sustainable Coastal Design and Planning*. E. Mossop, editor. CRC Press, Taylor and Francis, Boca Raton, Florida.

Johnson, L.R., and S.N. Handel. 2019. Management intensity steers the long-term fate of ecological restoration in urban woodlands. *Urban Forests and Urban Greening* 41:85-91.

Handel, S. N., M. S. Meixler, M. F. J. Aronson, C. M. K. Kaunzinger, J. N. Epiphan, and J. Gurevitch. 2020. Restoration of Jamaica Bay fringing habitats: Post-Sandy status and new approaches for a resilient future. *Natural Resource Report* NPS/NCBN/NRR—2020/2113. National Park Service, Fort Collins, Colorado. 246 pages. https://irma.nps.gov/DataStore/Reference/Profile/2272721

Handel, S. N. 2020. Crawling across a meadow. Ecological Restoration 38(1):1-2.

Handel, S.N. 2020. Black and white, and green. Ecological Restoration 38(4):201-202.



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Handel, S.N. 2021. Deadwood, take a bow. Ecological Restoration 39(3):142-143.

Zambrano, L., S.N. Handel, T. Fernandez, and I. Brostella. 2021. Landscape spatial patterns in Mexico City and New York City: contrasting territories for biodiversity planning. Landscape Ecology. https://doi.org/10.1007/s10980-021-01372-x

Ehrenfeld, J. G., K. A. Ross, M. Patel, J. N. Epiphan, and S. N. Handel. 2020. Recovery of native plant species after initial management of non-native plant invaders: Vegetation monitoring in an exclosure in Morristown National Historical Park. Natural Resource Report NPS/MORR/NRR— 2020/2168. National Park Service, Fort Collins, Colorado. 58 pages.

Epiphan, J. N. and S. N. Handel. 2021. Disturbance in the Forest of Morristown National Historical Park: Influence of Gap Size on Tree Regeneration. Natural Resource Report NPS/MORR/NRR—2021/XXXX. National Park Service, Fort Collins, Colorado. 141 pages.

#### Summary

The word "ecology" or οικολογία was coined by the biologist Ernst Haeckel in 1866; I find this translates neatly as the "household of nature," thus bringing home the everyday social and environmental relationships between human and non-human biota, as well as our botanical and mineral world. We landscape architects traffic in both seeds and systems—our botanist friend Dr. Handel has been an invaluable collaborator in our investigations, and has deeply enriched our work as teachers and practitioners.

For the many reasons elaborated in this letter, I and my colleagues agree that Dr. Handel is an excellent choice for this year's LaGasse Medal for a non-landscape professional. His contributions over many years and in many ways have led to a significant increase the conservation of natural resources through habitat restoration as well as new design initiatives for public landscapes. We encourage the ASLA Honors and Awards committee to consider him for this honor, capping decades of hard work to improve our nation's natural resources. It is with my great enthusiasm and deep respect that I nominate Distinguished Professor Steven N. Handel, PhD, Hon. ASLA, for the 2023 LaGasse Medal.

Sincerely yours,

Professor Catherine Seavitt Nordenson, FASLA, AIA Director, Master of Landscape Architecture Program cseavittnordenson@ccny.cuny.edu

of New York





RE: Recommendation for Steven Handel for the LaGasse Medal

Dear friends,

It's an enormous pleasure to promote the candidacy of Steven Handel for the LaGasse Medal.

So much to say! Perhaps best to start with the idea that Steven Handel is a landscape architect's best friend: an ever-curious plant ecologist who loves equally to be in the field or the lab or in the classroom or in the design studio with designers. He's unstoppable. In the time we could call 'B.H. *Before Handel*,' ecologists were usually part of the opposing force on projects coming before local conservation commissions. They were often the expert witness predicting the project's negative impacts on wetland habitats. The emergence of the subfield of disturbance ecology, along with nascent recognition of the implications of the Anthropocene, began to change all that around 30 ago. Steven was one of the very first ecologists to show up on design teams. Today, that is standard—required—practice. He is one of the reasons why.

You will always get the science with Steven. But you will also always get an openness to design ideas, sharp queries probing the cultural side of the landscape, and always compelling linkages between the non-human and the human. Indeed, Steven is a humanist in science garb. His love of humor and his quick wit betray this very special hybridity. Plant nut, Yankees fan, villainous Red Sox detractor, *New Yorker* devotee. He's a complete and utter joy to spend time with, all the while bringing sound ecological practices to the work, tirelessly. These are his joys.

I might also note that his influence on the field of ecology is perhaps even more robust than his influence on landscape architecture. He sends me his monthly journal editorials, which are rich with the kind of broad reflections and predictions that only an academic/practitioner who has done the detailed science over the long duration can muster. Subjectivity is okay with Steven. Observations on behavior and culture proliferate. Wisdom from science—how rare that is.

Thank you for this opportunity. I would like nothing more than to see this for Steven Handel. Go for it!

Sincerely,

Gary R Hilderbrand FASLA FAAR he | him

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Principal

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LaGasse Medal Nominations c/o Honors and Awards 636 Eye Street, NW Washington, DC 20001-3736

February 19, 2023

Subject: Support for Dr. Steven Handel's Nomination for the LaGasse Medal

#### Dear Esteemed Jury:

As a landscape architect who is passionate about our profession and about the power of design to address the greatest challenges of our time, I am thrilled to offer my support for the nomination of Dr. Steven Handel for the ASLA's LaGasse Medal.

A word first of introduction. I am a landscape architect with more than twenty-five years of experience planning and designing public environments. For two decades, my practice was with Sasaki - a legacy interdisciplinary design practice based in Massachusetts. This is where I first met Dr. Handel during a design competition at the New Jersey State House in Trenton. At the beginning of 2018, I left Sasaki to launch Agency Landscape + Planning with my partner and urban planner Brie Hensold. Agency - as a mission-driven practice focused on issues of equity, inclusion, resilience and advocacy - is enacting in its work and mission our deep commitment to landscape as a catalyst and tool for positive social change.

I have worked with Dr. Handel over nearly 15 years at both professional practices and in various other initiatives. I understand deeply and hope to share here how his unique commitment to collaboration with landscape architects like myself is central to his advocacy for natural systems health and public land stewardship.

<u>Ecology + Design in Practice</u>. At Agency, we engage Dr. Handel often as a consulting ecologist on professional projects. We value his ecological rigor, willingness to collaborate deeply on design and his innate ability to tell powerful stories about natural systems. We often credit Dr. Handel as helping define some of the "big ideas" of projects. His passion and knowledge of natural systems fuel a creative process that we believe yields much better design.

Most notable of our work together is the U.S. Department of Housing and Urban Development's Rebuild by Design Competition following Superstorm Sandy. Leading the Sasaki team with my partner Brie Hensold, I worked closely with Dr. Handel to develop an ecologically-based approach to resilience of the New Jersey Shore, an at-risk terrain of great ecological, cultural and economic value. Dr. Handel helped us illustrate the various geological conditions of this large, dynamic coastal edge, understand the opportunities and challenges of each coastal typology and formulate innovative approaches to resilience that were both grounded in New Jersey and replicable globally.

Dr. Handel continued to be a collaborator with Agency, but also a significant advocate and supporter of my work, both professionally and academically. For many years, Dr. Handel also served as an "ecology house doctor" at Sasaki, provided day-long workshops across various professional site design and planning projects. We know there are many other professional practices across the country that value him in similar ways.

<u>Making Visible the Power of Collaboration</u>. Dr. Handel believes deeply in the power of collaboration between ecology and landscape designers. He is relentless in his speaking, writing and teaching - including numerous collaborations with me - all with the intent of making this relationship more visible and effective.

In the part fifteen years, we have co-written a journal article in *Landscape and Urban Planning* and a chapter in Elizabeth Mossop's *Sustainable Coastal Design and Planning*. We have spoken together at both the National ASLA Conference and the Society of Ecological Restoration. We have also participated in each other's studio and seminar courses at the Harvard Graduate School of Design.

At both Rutgers University and Harvard, Dr. Handel's courses often sit at the intersection of landscape design and ecology. Numerous classes of burgeoning landscape designers and ecologists have, thanks to Dr. Handel, had this interdisciplinary exposure and collaboration. There is no way, really, to measure the collective impact Dr. Handel has had over the years through the people, projects and practices touched by his approach. I do imagine it is immense.

I enthusiastically support Dr. Handel for the honor and stand ready to provide any further information needed. I cannot imagine a person who is more deserving of the recognition.

Very truly yours,

Gina Ford, FASLA

Co-Founder. Principal and Landscape Architect

Agency Landscape + Planning

Ana Ford

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February 26, 2023

LaGasse Medal Nomination c/o Honors and Awards Committee 636 Eye Street, NW Washington, DC 20001-3736

RE: Nomination of Professor Steven Handel

#### To the Committee:

I'm thrilled to submit this letter in support the nomination of Distinguished Professor Steven N. Handel, PhD, Hon. ASLA, as a candidate for the 2023 LaGasse Medal. Steven, or as I've known him for many years "Dr. Butterflies" (a name given to him by one of my students, and the name stuck!) is an incredibly generous colleague. Since his **legacy of teaching, publications, and service,** as well as his public presence in the field is well documented I thought to focus simply on some personal anecdotes as a way to describe how he has interacted with landscape architects over the course of his career.

First, even as an eminent Rutgers Professor back in 2005, Dr. Handel picked up the phone when I called and enthusiastically joined me – a young leader of an office of merely three people – on a project to regenerate the Dunsink landfill in Dublin, Ireland. Probably nine out of ten individuals of his stature at the time would have declined, but he was happy to assist an unknown young professional and share his passion for landscape restoration and the importance of designing for habitat. Since that project collaboration, I've worked with Steven on a range of both communications and research projects, ranging from the ASLA Award winning Safari 7, where he hosted a "Weed Walk" podcast trailed by myself asking questions and a group of graduate students with microphones. Steven did these events on Saturdays and during his off hours because he loves teaching about habitat and ecosystems, and he loves interacting with landscape architects and students, and generally sharing his knowledge. Beyond these outreach activities, which aimed to get people to see the natural systems in the empty lot next door, or the parking lot of a Queens McDonalds, Dr. Handel also encouraged me to publish in scientific journals – in particular the white paper "Shellfish as Living Infrastructure" while he was the editor of *Ecological Restoration Journal*. I am quite confident that he has lifted up the curiosity, expertise, and knowledge for many other landscape architects.

Dr. Handel's numerous awards, achievements, and academic positions speak to his excellence and service to the field. What I hope to spotlight in this brief letter is his character, generosity, and passion for urban nature. He has influenced an entire generation of landscape architects in the Northeast. I highly recommend him for the LaGasse Medal.

Best Regards,

KATE ORFF, FASLA

**SCAPE** 

February 24, 2023

LaGasse Medal Nomination c/o Honors and Awards 636 Eye Street, NW Washington, DC 20001-3736

RE: Nomination of Professor Steven Handel for 2023 LaGasse Medal

To the Honors and Awards Selection Committee,

It's my honor to write in support of Dr. Steven Handel for the LaGasse Medal for his support in advancing the understanding and mission of Restoration Ecology within the profession of landscape architecture. I have known and worked with Dr Handel for close to twenty years, starting with work on the conversion of a municipal landfill in Tel Aviv, and later, on the Orange County Great Park in California, where I learned a lot from him about basic principles and applications of restoration ecology in the recovery of natural systems on disturbed sites. From my perspective, it his work within the specific area of restoration ecology that distinguishes his contribution to the landscape architecture profession. Given that most of our contemporary landscape practice is not within pristine natural landscapes, but rather within urbanized, disturbed and altered natural systems, his research and teaching has been fundamental in its impact on the profession. His research, teaching and consulting has had a great influence in guiding landscape restorations based on ecological principals and processes and in fostering the recovery of altered sites restoring them to healthier environmental conditions.

I wish to support this nomination and Dr. Handel for his significant and noteworthy contributions to the profession of landscape architecture.

Sincerely.

Ken Smith **FASLA** 

24 Feb 2023 LaGasse Medal Nominations c/o Honors and Awards 636 Eye Street, NW Washington, DC 20001-3736

Dear Members of the Jury,

I'm writing in enthusiastic support of my friend and colleague, Distinguished Professor Emeritus Steven N. Handel PhD, Hon. ASLA, as a candidate for the ASLA 2023 LaGasse Medal.

Steven is a wealth of information, generous in his time, enthusiastic in his interest, and is a true believer in creating more diverse and sustainable landscapes for everyone – especially in cities where I do the bulk of my work as the founder of W Architecture and Landscape Architecture.

Steven has worked with us on multiple projects, and he is always an inspiration. We have learned so much from Steven about the importance of diversity in our projects for benefit of the many species and ourselves. He is also very helpful in suggesting ways to implement restoration in various types of situations.

For instance, at St Patrick's Island in Calgary, an island which had been flattened and filled prior to our arrival, Steven helped us not only improve the existing forested areas, but also to create a new wetland. Under his guidance we created many elevations within the wetland to allow for various species to grow as well as to provide little islands in the wetland where birds could feel safe. This project is now built and it is filling out beautifully. Right before construction started, Steven suggested and helped organize a bioblitz for the public. Scientists from the area universities joined our team to work with the public to create a 24 hour survey of the park, identifying species. It was a huge success in providing publicity for the new park and its ecology. This year, eight years after it's completion, we are going back at the client's request and Steven is again organizing the event. We hope that there is a clear improvement in the overall species diversity. None of this—especially the public opportunity for learning, would have been possible without Steven.

At The Riverline in Buffalo, a former rail line which had been left alone for over 30 years, Steven helped us craft a doable plan for the very large site using seed dispersal while at the same time removing areas of intense degradation which were completely covered with a single species. The client appreciated the attention to implementation on a limited budget. Steven has also worked with us in the coastal areas of Jamaica Bay in NYC with wetland restoration in an area degraded by highway construction and at Orchard Beach where sensitive habitats needed to be protected adjacent to degraded landscapes which were the site of our project.

In summary, I can think of no one who has more robustly worked in multiple capacities to forward more diverse landscapes in public spaces. I heartily recommend Steven Handel for the LaGasse Medal.

Sincerely,

Barbara Wilks, FASLA, FAIA

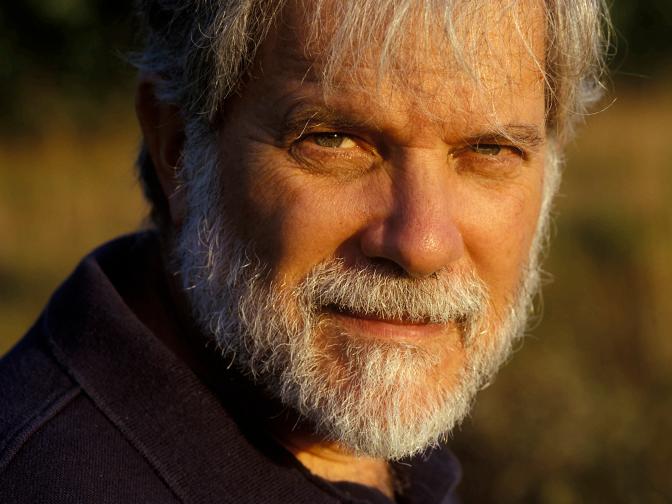
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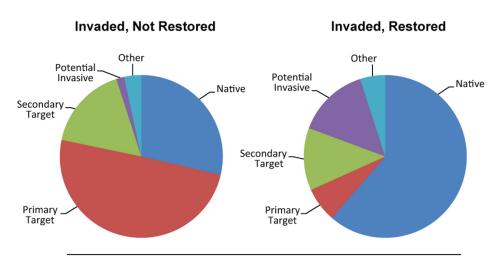
# HUTCHESON MEMORIAL FOREST

Installation of a 2-mile-long, 10-foot-tall deer fence allowed for deer removal and then restoration of historic biodiversity in this ancient forest, a model for management in other woodland preserves.

# **INSTALLATION OF RESEARCH GARDENS** Installation of ten research gardens around Jamaica Bay at the U.S. National Park Service's Gateway National Recreation Area tested performance of 11 native coastal species in different soil types, and taught landscape architecture and ecology students.

### More natives on the ground.

After 19 years, in New York City public parks where restoration ecology plantings occurred, native plants occupied a much greater proportion of ground layer cover than in unrestored plots. Targeted invasive plants were more abundant in sites that were not restored. This study justified the time and expense of restoration management in many public natural areas. (Johnson and Handel, 2016, 2019).



Site Type	Native		Primary Target			Secondary Target		Potential Invasive		Other	
	cm	%	cm	%	cm	%	cm	%	cm	%	
Restored	874	61%	105	7%	229	12%	213	14%	55	5%	
Not Restored	1249	29%	2152	50%	670	17%	61	2%	141	3%	

National Park Service

Natural Resource Stewardship and Science



# Disturbance in the Forest of Morristown National Historical Park

Influence of Gap Size on Tree Regeneration

Natural Resource Report NPS/MORR/NRR—2021/XXXX



## Disturbance regimes.

Landscape disturbance by major storms is increasing. A multi-year research study showed that gaps produced in public parks become more dominated by invasive plant species. Management must prioritize the restoration of these damaged areas to increase or maintain local biodiversity.