RESTORATION NEWS MIDWEST

Newsletter of the Midwest-Great Lakes Chapter of the Society for Ecological Restoration – September 2013, Volume 6, Issue 1

OUR CHAPTER – NEW IDEAS FOR THE NEXT FIVE YEARS

The Strategic Planning Committee (Nancy Aten, Chris Lenhart, Rocky Smiley, Young Choi, and Roger Anderson) and the Board of Directors has developed a draft of a 5-Year Strategic Plan that primarily focuses on meeting the needs and interests of our Chapter Members. The current draft of the Strategic Plan is simply a proposal and has not yet been approved by the Board of Directors. The proposed vision of the Strategic Plan is for the MWGL (Midwest-Great Lakes) SER Chapter is to become a primary regional source for information on issues related to ecological restoration and provide a forum for interchange of ideas on restoration among scientists, practitioners, students, and members of the lay public. The proposed goals of the Strategic Plan reflect the results of the membership questionnaire that was completed by forty-six members (25% of our membership) in April 2013. This survey indicated that three most important benefits the MWGL SER Chapter should provide its members were the opportunity to interact with others interested in ecological restoration, networking opportunities, and training/continuing education opportunities. Within the proposed Strategic Plan strategies were developed from these stated membership needs. Proposed strategies consisted of having two major membership events annually; developing online webinars on regional restoration issues, methods, practices, and/or research; providing highlights of restoration projects within the region on digital media; and development of publications and short notes on regional restoration topics and best restoration practices.

Carrying out the proposed Strategic Plan will require considerable planning and effort on the part of the Board of Directors and additional resources. The Chapter is a 501(c)3 non-profit organization and we anticipate expanding our fund-raising efforts to provide financial resources needed to accomplish some of the proposed strategies. We also anticipate the Board of Directors will need greater chapter membership involvement to meet the goals of the proposed Strategic Plan. In anticipation of this need we are planning on posting information on our Chapter Facebook page and our website to alert members about ways they could serve the Chapter.

Two proposed strategies currently under consideration are to increase chapter membership and provide greater student support. We are pleased the Membership Committee under leadership of Joe DiMisa initiated several efforts which increased our membership roster since last quarter. Under the leadership of Lauren Umek, the Awards Committee has begun developing a student grant that will support student research and restoration projects as part of our efforts to increase support for student Chapter members.

The proposed Strategic Plan also features the Annual Meeting as the primary Chapter membership event (see next article for review of last year's meeting). This year's Annual Meeting will be held on the University of Minnesota's campus in St. Paul, Minnesota from March 28 to March 30, 2013. The call for abstracts for contributed presentations, symposia, and workshops will be released in November 2013.

The Chapter exists because of its members and we feel the proposed 5-Year Strategic Plan has the potential to improve the MWGL SER Chapter's ability to meet the needs of its membership.

Roger Anderson, President

REVIEW OF THE 2013 ANNUAL CHAPTER MEETING

The Midwest Great Lakes SER Chapter held its Fifth Annual Meeting at the Ohio Agricultural Research and Development Center (OARDC) in Wooster, Ohio from Friday April 12 to Sunday April 14, 2013. Meeting attendees consisted of 134 students and professionals from 11 states (California, Ohio, Indiana, Illinois, Maryland, Michigan, Minnesota, Pennsylvania, South Dakota, West Virginia, Wisconsin) and the District of Columbia who were affiliated with academia, federal agencies, state agencies, non-profit groups, or consulting firms. The meeting theme was '"Ecological Restoration and Sustainability – Partners for the Future." As a result our goal for the meeting was to explore how the field of ecological restoration can assist other disciplines with achieving their sustainability goals and how other disciplines can contribute to ecological restoration. The meeting consisted of a keynote presentation, two plenary sessions, three symposia, a poster session, sponsorship exhibits, oral presentations, and three offsite field trips.

We are grateful for the generous support provided by our meeting hosts (the Ohio State University's OARDC and School of Environment and Natural Resources) and our 16 sponsors (Genesis Nursery, Ernst Conservation Seeds, The Nature Conservancy, ENVIRON, Davey Resource Group, Prairie Restorations Inc., Stantec, Biohabitats, Cardno JFNew, Eco Logic, EnviroScience, Reforestation Solutions Inc., The Wilds, Island Press, MAD Scientist and Associates, Spence Restoration Nursery).

The opening plenary session was entitled *Interdisciplinary Insights for Guiding Future Ecological Restoration and Sustainability Efforts*. Liam Heneghan (DePaul University), Louis Iverson (USDA Forest Service), Jeffrey Reutter (Ohio Sea Grant and Stone Laboratory), and Robyn Wilson (Ohio State University) discussed how their experiences and research results from the Midwestern United States can be used to guide future ecological restoration and sustainability efforts. Liam Heneghan began the session by using examples from the Chicago Wilderness region to examine restoration from scientific, environmental philosophy, and sustainability perspectives. The next speaker, Louis Iverson, presented the results of modeling efforts that predicted the vulnerability and capacity to adapt of 70 to 80 tree species under changing climate in the eastern United States. Jeffrey Reutter's presentation provided an overview of the historical and recent trends in habitat quality in Lake Erie and how these trends serve as examples of the feasibility of pollution control efforts to improve habitat conditions in Lake Erie and provide economic benefits to associated communities. The session concluded with Robyn Wilson's presentation that provided insights in how social science research involving land use and land management decisions in forest and agricultural land can guide restoration efforts.

Meeting attendees listening to Robyn Wilson's opening plenary presentation

Following the Opening Plenary Session meeting attendees had the choice of three contributed symposia. Cody Fleece organized a symposium that focused on the challenges

and opportunities faced by dam removal projects and how these projects can be designed to contribute to stream restoration. The dam removal symposium consisted of six speakers who spoke on their experiences with different aspects of dam removal projects in Ohio and Indiana. A second symposium organized by Kristin Jaeger and Charles Goebel included five speakers with experience in terrestrial and aquatic ecosystems who provided a synthesis of research findings related to restoration of surface mined ecosystems, an introduction to regional restoration initiatives, and updates on recent research results related to impacts of surface mining and challenges for future restoration efforts. Mary Beth McCormack organized the third symposium that examined how using land stewardship as a form of service learning can teach students about scientific concepts involved in ecological restoration and how educational partnerships can contribute to ecological restoration. These three speakers highlighted the joint linkages between education and ecological restoration.

Mary Beth McCormack's presentation during the partnership symposia

Friday evening began with the ever popular sponsorship reception that provided attendees with an opportunity to socialize with each other, to view sponsorship exhibits, and view 18 poster presentations involving a wide range of topics from invasive species control to prairie restoration to restoration of contaminated lands.

Attendees enjoying the sponsorship reception and the poster session

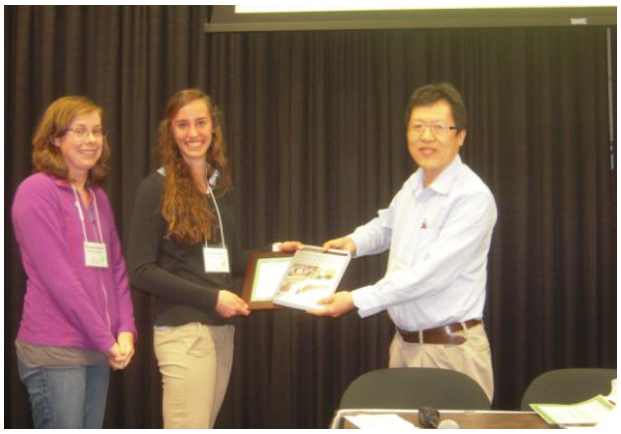
Dr. Mohan Wali (Ohio State University) gave his keynote presentation *Ecosystem Restoration: the Bedrock of Sustainability* after the conclusion of dinner on Friday evening. Dr. Wali's presentation incorporated examples from his research on the assessment of terrestrial ecosystems impacted by surface mining and subsequent restoration efforts in North Dakota. Dr. Wali highlighted the need for bringing results from ecological restoration research into the public policy arena to promote ecological restoration at a large scale.

Mohan Wali beginning his keynote presentation

Saturday morning began with concurrent sessions of contributed oral presentations. Thirty-one contributed oral presentations involving a wide range of ecological restoration and sustainability topics were grouped into four concurrent sessions that included Forest and Nature Preserves; Urban Ecosystems; Coastal Areas and Wetlands; and Streams.

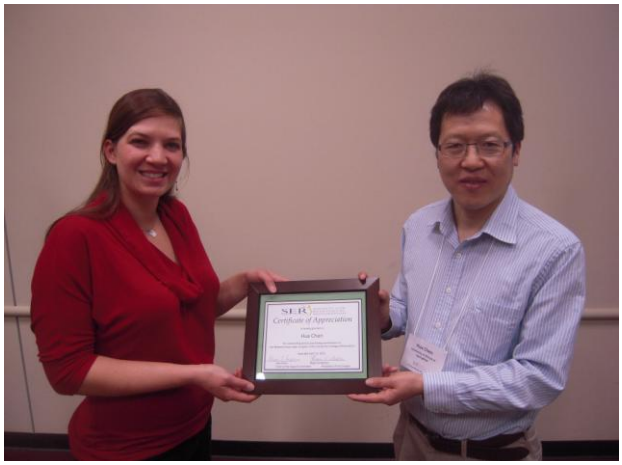
The Annual Chapter Business Meeting and Awards Ceremony were held following lunch. The Chapter Business meeting provided an opportunity for Chapter members and attendees to receive updates from SER and selected Chapter Committees. Notably, President Roger Anderson provided Chapter members with an overview of the proposed five-year strategic plan being developed by the Strategic Planning Committee and the Board of Directors that will provide a guide for future Chapter activities.

Student award winners were recognized during the Awards Ceremony. The Best Student Poster Award went to Brad Gordon (Taylor University, Upland, Indiana), for his poster presentation entitled *Creating biological benchmarks for habitat assessment following management of wetlands and oak savannas in northwestern Indiana*. The Best Student Oral Presentation was awarded to Priscilla Nyamai (Ohio State University) for her oral presentation entitled *Initial regeneration and litter decomposition response following a variable-retention harvest in mixed-pine forests of eastern Upper Michigan*. The winners of the Student Presenter Who Traveled the Furthest Award were Rachel Shmagrnoff and Samantha Kinsman from Purdue University Calumet in Hammond, Indiana. The recipients of the best student poster and oral presentation received check for $75. All student award winners received their choice of one a dozen restoration books donated by Island Press.



Hua Chen congratulates Samantha Kinsman and Rachel Shmagrnoff for winning the Student Presenters Who Traveled the Farthest Award

Outgoing Chapter Vice-President Hua Chen was also recognized during the Awards Ceremony for his service over the past seven years. He was involved in the original chapter formation, served as Chapter Treasurer, Vice-President, chair of the Awards Committee, co-chair of the Strategic Planning Committee, and was a member of the Annual Meeting Committee from 2009 to 2013.



Lauren Umek presents Hua Chen a certificate of appreciation for his seven years of service

Saturday afternoon concluded with a joint plenary session and tour organized by our Meeting Hosts titled *Managing Sustainable Ecosystems can Lead to Conservation and Restoration*. John Cardina (OARDC

Department of Horticulture and Crop Science), Dan Herms (OARDC Department of Entomology), and Richard Moore (OARDC School of Environment and Natural Resources) gave presentations that highlighted how their research on managing aquatic and terrestrial ecosystems for sustainability can help restore important ecosystem functions. Following these presentations Casey Hoy from OARDC's Agroecosystem Management Program provided a virtual tour of the Mellinger Farm, an overview of future plans for the farm, and led a discussion on how the farm could be designed with sustainability and restoration in mind. Following the plenary session attendees had the option of a guided tour of the Mellinger Farm to view the farmstead and continue discussion of restoration and sustainability options for the farm or a guided tour of the Secrest Arboretum to examine research sites associated with the Emerald Ash Borer and recovery from the 2011 tornado.

Charles Goebel discusses the impacts of the 2011 tornado on the Secrest Arboretum

Three offsite field trips were held on Sunday morning. Charles Goebel led a field trip to the Johnson Woods, which is one of the largest and least-disturbed old growth forests in Ohio. Kristin Jaeger lead a field trip to the Wooster Memorial Park that involved a hike highlighting several restoration efforts within this forested watershed. Gil Bohrer, Kay Stefanik, and Cody Fleece led a field trip of the Olentangy River Corridor that included a tour of the Wilma H. Schiermeier Olentangy River Wetlands Research Park and the Fifth Avenue Dam Removal Project (see next article for more details).

Field trip participants explore Johnson Woods (Photo Credit: Mark Dilley)

Rocky Smiley, Annual Meeting Chair and
Roger Anderson, President

FIFTH AVENUE DAM REMOVAL AND LOWER OLENTANGY RIVER RESTORATION PROJECT

The Fifth Avenue Dam on the Olentangy River was approximately 3.2 km upstream of its confluence with the Scioto River near downtown Columbus, Ohio. The dam was situated adjacent to Battelle Memorial Institute, and the dam pool extended upstream through the Ohio State University (OSU) campus for almost 3.2 km. The dam was initially constructed in 1935 to provide a constant pool of water for use by the OSU power plant which is no longer operational making the dam obsolete.

Fifth Avenue dam site prior to dam removal and implementation of restoration project

The Ohio Environmental Protection Agency (OEPA) determined that the segment of river impacted by the Fifth Avenue Dam was not meeting biological and water quality standards. However, the free-flowing segments of the Olentangy River downstream of the dam and upstream of the pool were documented to have much better scores in biological and habitat quality indices. This comparative information suggested that the removal of the dam and subsequent restoration to a free-flowing river will improve the habitat, biology, and water quality and enable this segment of the river to meet the use designation as prescribed by OEPA. The dam also posed a significant safety risk evidenced by the loss of life in a recent drowning accident.

Project overview

The City of Columbus Department of Public Utilities, OSU, and OEPA partnered to fund the design and construction of the project. The Friends of the Lower Olentangy Watershed assisted by providing public outreach. The U.S. Army Corps of Engineers Huntington District, Ohio Department of Natural Resources, U.S. Fish and Wildlife, Battelle Memorial Institute, and the Ohio Department of Transportation have provided assistance and/or input throughout the project. Stantec earned a qualifications-based selection for professional engineering services to remove the dam and restore the upstream river segment and riparian areas.

The project involved the removal of the dam structure and subsequent restoration of the impounded river segment and riparian areas. The dam spanned 140 m across the river near Fifth Avenue and beneath State Route 315. However, due to the river naturally flowing toward the east bank, only approximately 70 m of the dam was removed. The remaining portion of the dam on the west bank remains. Fill was added around the remaining portion and the area was planted to create a floodplain that protects the existing State Route 315 bridge piers from scour. The existing abutments also remained in place to help maintain bank stability.

A natural channel design model was used as the guiding image to enable our project design to restore form and function back to the river for approximately 2.6 km upstream of the dam. The restoration provides a narrower channel with riffles, pools, and habitat structures and vegetated riparian areas along the banks. These modifications are designed to facilitate increases in qualitative habitat evaluation index (QHEI) scores and other indicators to improve to levels that will move the river segment from modified warm water habitat use designation to warm water habitat use designation.

Design

Our design approach focuses primarily on restoring the floodplain adjacent to the channel and modifying the dimension, pattern, and profile of the river in place using structures. We felt the best way to reduce the effects of the existing impairments and to meet the project's goals and objectives was to use a natural channel design approach (Rosgen 1996) that involves restoring the existing channel to a

"pre-dam" condition. The principal tenet of natural channel design is creating a stable condition defined as "*a channel that is capable of conveying both the water and sediment delivered from the watershed without significant alteration to the channel shape or profile.*" The proposed channel will be narrower, deeper, and have greater bed variability. Another key design objective was to protect existing infrastructure along the project corridor (i.e., electric lines, water lines, bridge piers, stormwater outfalls, etc.).

Assessment of regional and local geomorphic relationships were a vital part of the natural channel design process. These relationships are important to assess geomorphic stability, determine the degree of impairment, predict the stable geomorphic form, and identify acceptable geomorphic dimensions. These relationships typically focus on understanding the geomorphic setting of the watershed through the examination of regional hydrologic relationships (i.e., regional curves and flood frequency analyses) and reference reach conditions. An understanding of these relationships can be used to evaluate the departure of a stream reach from the stable form and the recovery potential of the stream.

Regional curves are typically derived for large-scale areas such as physiographic province, large geographic regions, or the entire watershed of a major river system. We developed regional curves based on surveys of cross-sections located downstream of the Fifth Avenue Dam. We confirmed that our regional curves were comparable with regional curves developed from streams and rivers in Ohio (USGS 2005) and the Eastern United States (Dunne and Leopold 1978). We also used regional curves based on cross-section area rather than discharge, because of the Olentangy River's altered watershed, its highly varied hydrologic response to storm events, and the many channel modifications present within the river. Our site-specific regional curves were then used to develop bankfull stream dimensions (cross-sectional area, width, and depth) and discharge that would serve as design parameters for the project.

The channel dimensions, pattern, and profile set within the design were limited by the infrastructure located along the river that needed protection. As a result some proposed geomorphic dimensions, such as pool-to-pool spacing, meander wavelength, pool depths, riffle lengths, and glide depths are slightly different than the ideal reference conditions due to the infrastructure constraints. However, the proposed dimensions of these geomorphic characteristics do fall within the ranges of dimensions predicted by regional and local geomorphic relationships.

A second tenet of natural channel design is the use of a reference reach as a blueprint for the restoration design of the impaired river reach. We collected reference reach data from two impounded rivers (Alum Creek and the Little Miami River) to compare with existing conditions within the project reach. Alum Creek is located near Columbus, Ohio and was selected due to its proximity to the project area, its relatively large drainage area, and the similarity of its watershed characteristics with the Olentangy River. The Little Miami River is located near Cincinnati, Ohio and was selected for its large drainage area and the presence of two large dams within its watershed.

We also used a sediment transport model to implement channel features that would ensure the stability of the restored reach. The model was used to determine the threshold particle size capable of being moved by the river. Threshold particle size and the hydraulic geometry of the channel were then used to design threshold riffles. Threshold riffles are riffles possessing substrates that will not move during flooding events. These riffles were

needed because the sediment transport model indicated a lack of bedload was being transported into the project reach because of the presence of an upstream flood storage reservoir. The sediment transport capacity of the project reach was also evaluated with the sediment transport model to ensure the design of the restored channel would prevent the filling in of the channel, enlargement of channel, and the release of excessive sediment downstream following dam removal.

Construction

The design and permitting were sequenced such that project construction began during the late summer of 2012 during the typical period of low flow in the river. The first phase of the dam removal was implemented on August 29, 2012 and resulted in the removal of the top 1.1 m of the dam

Removal of the Fifth Avenue dam in August 2012

Prior to dam removal and during the drawdown that occurred as the dam was removed, freshwater mussels were rescued from the area of the river to be restored. These rescue efforts required professionals from Stantec, Ohio Department of Natural Resources, OSU, and local volunteers. Approximately 7,500 live mussels were relocated to appropriate upstream and downstream areas of the Olentangy River that were outside of the impacts of the restoration project.

Rescued mussels from project area

Construction of the new river profile, river banks, and fringe wetlands progressed upstream from Fifth Avenue toward Lane Avenue for the remainder of 2012 and through 2013. The project is scheduled to be complete upon the installation of the final plantings in late spring of 2014. The project can easily be viewed by the public from the Olentangy Multi-Use Trail, or you may catch an overhead glimpse from the blimp this fall during OSU home football games!

Fifth Avenue dam site after dam removal and implementation of restoration project.

Cody Fleece, Scott Peyton, Bryon Ringley, and Travis White, Stantec.

ISLAND PRESS – ONE OF SER'S PUBLISHING PARTNERS

Since our founding in 1984, Island Press has worked to provide the best ideas and information to those seeking to understand and protect the environment and to become a leading environmental publisher by implementing innovative means of connecting people with multidisciplinary and evidence-based ideas. We are unique among scientific publishing companies because we are a 501(c)3 non-profit organization. Currently, we have published almost 1,000 books by over 3,000 authors.

We have been publishing books that have helped shape the field of ecological restoration at every stage of its development. Our commitment to ecological restoration is highlighted by our formal publishing partnership with SER since 2001. This partnership is linked through the joint SER-Island Press Science and Practice of Ecological Restoration series (www.islandpress.org/ser). The 27 books currently included in the series range from one of the first introductory restoration textbooks to contributed volumes focusing on individual niche ecosystems. A discount on all Island Press books is one of the benefits included in SER membership.

Whether a book is included in the series or not, our work starts long before publication as we actively seek to identify innovative thinkers and emerging trends in the environmental field. For us it is important that the foundation of our books consists of a synthesis of ideas that ultimately leads to further progress within the environmental field.

The most recent book in the Science and Practice of Ecological Restoration series is the second edition of *Ecological Restoration* by leading restorationists Andre F. Clewell and James Aronson. These two authors offer an insightful look at the current state of ecological restoration and offer guidance to anyone looking to get involved in ecological restoration. Clewell and Aronson's book also includes case studies written by people involved in a variety of restoration projects around the world that illuminate the ecological restoration issues discussed within the book.

Island Press has established a focus in five core areas: climate and energy; ecosystems; oceans and water; policy, economics, and law; and the built environment. However, we are also eager to publish books that build bridges between disciplines.

For example, *Principles of Ecological Landscape Design* by Travis Beck (Mt. Cuba Center in Hockessin, Delaware) was published in the built environment list, but has drawn attention and praise within the ecological restoration community as well. Similarly, *Introduction to Restoration Ecology*, the textbook offering of the SER series authored by Evelyn Howell, John Harrington, and Stephen Glass, has received favorable reviews from ecological restoration journals and by two key journals within the urban planning community. We are pleased to be able to play a role building the interdisciplinary partnerships that will be necessary to tackle the difficult problems now facing us.

Island Press is also excited to be at the forefront of electronic publishing. More than 500 of our titles are available as e-books that are sold on our own website and in the device-specific stores of Amazon, Apple, Barnes & Noble, and Kobo. We are experimenting in the world of electronic shorts with our E-ssentials series (www.islandpress.org/essentials) that offers digital-only books that are short enough to be read in a couple of hours, but long enough to illuminate complex environmental topics. SER members will be particularly interested in the three-part *Big, Wild, and Connected* series by the

Wildlands Network's John Davis, which traces his 12,231 km human-powered journey from Florida to Quebec in search of an Eastern Wildway corridor.

Our philosophy is based around a three-dimensional approach to publishing that allows Island Press to spread the messages of our books far beyond just those who read them. We recently collaborated with SER to sponsor a restoration video contest and invited students and early-career professionals to share their experience in ecological restoration. Social media played a key role in this contest where videos and projects were provided a dedicated online space and voting was conducted online. Our goal with the contest was to support and bring attention to budding restoration projects being conducted by young people. This innovative project enabled us to distribute information outside of the traditional avenues of publishing.

Our publications are backed by coordinated campaigns to deliver their messaging in print, in person, and online using the latest electronic media tools and outlets. As the methods of information delivery evolve, so will the way Island Press provides solutions and inspiration to policymakers, practitioners, scientists, professors, students, and activists.

Meghan Bartels, Island Press.

A SHORT NOTE ON THE ETYMOLOGY OF RESTORATION

In preparation for the upcoming SER 2013 World Conference (www.ser2013.org), I have been thinking about the role of history in restoration practice. Session organizer Paddy Woodworth asked me to speak on a panel discussing the continuing relevance of the historically-based reference system in guiding restoration practice. At the time of this request I had been reading extensively on the history of the concept of time across the disciplines – in philosophy, physics, ecology, and so on. Recognizing that the question that this session grapples with concerns what ecologists and land managers *do* with time, I thought that it would be useful to present a summary from this interdisciplinary examination of time and history.

Quite clearly, restorationists are not the first to grapple with the question of what time is, and how precisely we should incorporate (or not) history into our plans for the future. It is apparent, however, that there is no clear agreement among philosophers, or indeed physicists, about time and whether it should be regarded as "real." Nor is there a consensus on our degree of indebtedness to history, where that term is understood as that "whole series of past events connected with a particular person, country, institution, or thing." (Oxford English Dictionary). There are clearly circumstances when human actions are advantageously guided by history. The positive uses of history are summed up in the frequently paraphrased sentiment of the philosopher George Santayana who wrote "Those who cannot remember the past are condemned to repeat it." On the other hand, perhaps we intuit that at times that we can be overwhelmed by the past – sometimes we are encouraged to let go of the past. This is the perspective of German philologist Friedrich Nietzsche (1844–1900) who in an essay entitled *The Uses and Disadvantages of History for Life* (1884) argued that an overly punctilious regard for history can be less than useful for life. We restorationists can draw upon philosophical meditations on the use of history as I hope to illustrate in my remarks in Madison in October.

What follows are some preliminary thoughts on the role of the historical perspective in restoration. I argue that the term "restoration",

which is a relatively new one in the lexicon of ecological management, was well chosen if we intended our discipline to one where the past was a consideration in determining the future of a given system.

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"ECOLOGICAL restoration," William Jordan III wrote, "is the attempt, sometimes breathtakingly successful, sometimes less so, to make nature whole." It is a game self-consciously played with time. This is not to say, as amateur dabblers in environmental philosophy are inclined to, that restoration is doomed to failure because it attempts, impossibly, to reverse the flow of time. Nor is it fair to claim, despite the rhetorical tendency of some early practitioners to describe it so, that restorationists privilege one historical moment in time — pre-white-settlement in the Midwestern United States, for example — and attempts to return a dynamic system to this one state and thereafter freeze it in time. Rather, a majority of practitioners view restoration as a set of actions performed to compensate for unwanted recent human impacts and thereby reestablishing the historic range of variation of a system. Depending on the specific history of a region this ecological trajectory may also reflect the influence of indigenous human populations.

The connection between restoration ecology and history is manifested in the etymology of the word restoration. The origins of the prefix "re" refers to the original Latin, meaning 'back' or 'backwards', though in connection with a large variety of words the use of this prefix can be quite complex. For instance, in words like recede and reduce it means to go 'back to or towards the starting point', or more evocatively, for our purposes, in a word like restitution the prefix implies going 'back to the original place or position'. It is clear from the lengthy etymological essay on this prefix in the Oxford English Dictionary, that both in Latin and subsequently in English, the "precise sense of re- is not always clear". That being said, the Oxford English Dictionary states that in English formations "re- is almost exclusively employed in the sense of 'again'".

Although the suite of activities that collectively constitute what we call restoration might have been named something else — Bill Jordan told me once that "synthetic ecology" had been floated as one possibility. Contemporary definitions of our discipline indicate that "restoration", with all the temporal connotations this term carries, is indeed appropriate. For instance, in the Society for Ecological Restoration Primer, ecological restoration is defined thus: "*…the process of assisting the recovery of an ecosystem that has been degraded, damaged, or destroyed*." Note that the word "restoration" is conflated in this definition with "recovery", another word with a prefixial use of "re", and is followed, by several ones where "de" is the prefix. The history of the prefix "de" appears to me, at least, to be less complex than that of "re" but generally it has the function of undoing or reversing the action of its associated verb. It can also mean to take something down (replacing to an original condition). Thus to destroy is to undo the action of "struĕre", a piling up, a construction. Note that had "synthetic ecology" been the term we inherited it would not have a direct linguistic connection with time.

Restorationists must, of course, assert the reality of time since restoration is ultimately an activity where humans intrude into the temporality of ecological systems. This is true even if restorationists alter a system with a view to a longer-term disengagement from a direct human involvement — erasing the impact and tip-toeing away from the land. A subjective assessment of time is therefore both implicit and consequential for restoration.

The question before us as restorationists is to what degree the past states of a system should guide our management if the future that we face under the conditions of global change has no analogue in the past? The answer to this question not only has practical implications but it has ethical implications and ramifications for the ways in which we can regard ourselves as stewards of rare species and the habitats that they require.

If you are interested in learning more about this topic and the relevance of historically-based reference systems then plan on attending Session 1.06 that will be held in the appropriately name Hall of Ideas from 10:30 am to 12:30 pm on Wednesday October 9th at SER 2013.

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SELECTED CONTENTS OF THE SEPTEMBER 2013 ISSUE OF *RESTORATION ECOLOGY*

REVIEW ARTICLE

L. Wortley, J. Hero, & M. Howes. Evaluating ecological restoration success: a review of the literature.

RESEARCH ARTICLES

S. Mahieu, S. Soussou, J. Cleyet-Marel, B. Brunel, L. Mauré, C. Lefèbvre, & J. Escarré. Local adaptation of metallicolous and non-metallicolous *Anthyllis vulneraria* populations: their utilization in soil restoration.

S. Tarrant, J. Ollerton, M. Rahman, J. Tarrant, & D. McCollin. Grassland restoration on landfill sites in the East Midlands, United Kingdom: an evaluation of floral resources and pollinating insects.

N. Hancock, M.R. Leishman, & L. Hughes. Testing the "local provenance" paradigm: a common garden experiment in Cumberland Plain Woodland, Sydney, Australia.

N. Liu, H. Ren, S. Yuan, Q. Guo, & L.Yang. Testing the stress-gradient hypothesis during the restoration of tropical degraded land using the shrub *Rhodomyrtus tomentosa* as a nurse plant.

J.T. Bried. Adaptive cluster sampling in the context of restoration.

O.Tarvainen, A.M. Laine, M. Peltonen, & A. Tolvanen. Mineralization and decomposition rates in restored pine fens.

S. An, Y. Cheng, Y. Huang, & D. Liu. Effects of revegetation on soil microbial biomass, enzyme activities, and nutrient cycling on the Loess Plateau in China.

R.G. Corace III, A.T. Stout, P.C. Goebel, & D. M. Hix. Snag benchmarks and treatment options for mixed-pine forest restoration in Eastern Upper Michigan.

S.M. Benigno, K.W. Dixon, & J. C. Stevens. Increasing soil water retention with native-sourced mulch improves seedling establishment in postmine Mediterranean sandy soils.

T.R. Caplan, K. Cothern, C. Landers, & O.C. Hummel. Growth response of coyote willow (*Salix exigua*) cuttings in relation to alluvial soil texture and water availability.

P.F. Quintana-Ascencio, J.E. Fauth, L.M. Castro Morales, K.J. Ponzio, D. Hall, & K. Snyder. Taming the beast: managing hydrology to control Carolina willow (*Salix*

caroliniana) seedlings and cuttings.

K.J. Cutting & J. Hough-Goldstein. Integration of biological control and native seeding to restore invaded plant communities.

For more information on current and past issues of Restoration Ecology see:
http://www.blackwellpublishing.com/journal.asp?ref=1061-2971&site=1

UPCOMING ECOLOGICAL RESTORATION RELATED CONFERENCES AND EVENTS – SEPTEMBER TO DECEMBER 2013

Volunteer Work Day – Small Waters Education. Assist with invasive plant removal, planting native seed, and stacking brush at Alden Sedge Meadow. Third Sunday of each month in October, November, and December 2013. Between Hebron and Harvard, Illinois. Call Jack or Judy Speer at 815-648-1372 for more information.

Volunteer Work Days – Cedar Creek Institute. Assist with invasive species removal. September 27, October 4, October 11, October 18, and October 25, 2013. Hastings, Michigan http://www.cedarcreekinstitute.org/

Volunteer Work Days – Urbana Park District. Help with removing invasive species, improving trails, collecting seed, and planting native species. Work Days scheduled each Saturday of September, October, November, and December 2013 at three different locations in Illinois. Contact Derek Liebert at 344-9583 for more information.

Volunteer Work Days – Rum River Wild Rice Collection. Great River Greening. September 20 to October 5, 2013. Assist with collection and/or planting of wild rice along Wild and Scenic Rum River in Minnesota. See webpage for more details.
http://www.greatrivergreening.org/events/wild-rice-collection/

Volunteer Work Day - Voyageurs Volunteer Rendezvous. Voyageurs National Park Association. September 27 to 28, 2013. Voyageurs National Park, Minnesota.
http://www.mepartnership.org/event/voyageurs-volunteer-rendezvous/

Conservation of Great Lakes Natural Areas. 2013 Annual Meeting of the Michigan Consortium of Botanists. September 28, 2013. Albion, Michigan.
http://www.wildones.org/events/conservation-of-great-lakes-natural-areas-micob-2013-annual-meeting/

Aquatic Invasive Species Workshop. Ozaukee Washington County Land Trust, Tall Pines Conservancy, and River Alliance of Wisconsin. September 28, 2013. Hartford, Wisconsin.
http://gatheringwaters.ehclients.com/news-and-events/land-trust-events/P5

Fall Landscaping with Native Plants Garden Tour. Indiana Native Plant and Wildflower Society. September 28, 2013. Indianapolis, Indiana.
http://inasla.org/meetinginfo.php?id=108&ts=1376517951

Volunteer Work Day – Cannon River Woodland Restoration Event. October 5, 2013. Cannon Falls, Minnesota. See webpage for more details.
http://www.greatrivergreening.org/events/cannon-river/

86th Annual Water Environment Federation Technical Exhibition and Conference. Water Environment Federation. October 5 to 9, 2013. Chicago, Illinois. http://www.weftec.org/

The Wildlife Society's 20th Annual Conference. October 5 to 10, 2013. Milwaukee, Wisconsin.
http://wildlifesociety.org/

The Biology and Management of Asian Carp: Lessons for Minnesota. Public Lecture by Duane Chapman. Freshwater Society. October 8, 2013. University of Minnesota St. Paul campus. http://freshwater.org/

2013 Fifth World Conference on Ecological Restoration. Society for Ecological Restoration. October 6 to 11, 2013. Madison, Wisconsin. http://www.ser2013.org/

Wetland Restoration Workshop hosted by US Fish and Wildlife Service Partners Program, The Amphibian and Reptile Conservancy, Association of State Wetland Managers, Sheltowee Environmental Education Coalition, and Center for Wetlands and Stream Restoration. October 10 and 11, 2013. Mt. Orab, Ohio.
http://www.wetlandsandstreamrestoration.org/Training/Mt.%20Orab%20Wetland%20Restoration%20Workshop.pdf

International Wolf Symposium 2013: Wolves and Humans at the Crossroads. October 10 to 13, 2013. Duluth, Minnesota.
http://www.wolf.org/wolves/news/events_2013conference.asp

Lake Michigan: State of the Lake. Great Lakes Beach Association Conference. October 15 to 17, 2013. Sheyboygan, Wisconsin.
http://aqua.wisc.edu/solm/

Lake Erie Center Public Lecture: Jennifer Read – Measuring for Management: The Great Lakes Observing System a Collaborator and Facilitator of Data Collection, Management, and Integration in the Great Lakes Region. October 17, 2013. Lake Erie Center, Oregon, Ohio. http://www.utoledo.edu/nsm/lec/

Landscape Scale Conservation Planning. Pierce Cedar Creek Institute. October 17, 2013. Hastings, Michigan.
http://www.landtrustalliance.org/events-news/calendar/landscape-scale-conservation-planning

Call for Abstracts for Oral Presentations – 2014 Upper Midwest Stream Restoration Symposium. **Abstract Deadline – October 18, 2013.** See webpage for more details
http://www.prrsum.org/content/call-abstracts

Volunteer Work Day – Chiwaukee Prairie Work Day. Friends of Chiwaukee Prairie. October 19, November 16, and December 21, 2013. Wisconsin. See webpage for more details
http://www.chiwaukee.org/ways_you_can_help.htm

Volunteer Work Days – Ottawa Bluffs Preserve. Assist the Minnesota Chapter of The Nature Conservancy with seed collection and/or brush control. October 19, November 2, November 16, and December 7, 2013. Contact The Nature Conservancy at 612-331-0751 for more information.

Professional Raingarden Workshop. Clark County Soil and Water District. October 22, 2013. Charlestown, Indiana.
http://www.clarkswcd.org/District/Raingarden_8%201x11_Trifold_final.pdf

Setting Ecological Endpoints and Restoration Targets. 2013 State of the Strait Conference. October 28, 2013. Windsor, Ontario, Canada.
http://web4.uwindsor.ca/units/stateofthestraight/softs.nsf/SubCategoryFlyOut/B5E17EDA8333465C85257845006918A0

Working Together to Protect and Restore Our Water Resources. 2013 National Nonpoint Source Monitoring Conference and Workshops. October 28 to 30, 2013. Cleveland, Ohio.
https://npsmonitoring.tetratech-ffx.com/

2013 Ohio Chapter American Society of Landscape Architects Fall Educational and Gala. November 1, 2013. Cincinnati, Ohio.
http://ocasla.com/meetinginfo.php?id=86&ts=1379088614

16th Annual Rattlesnake Master Run for the Prairie – a benefit for the Grand Prairie Friends. November 3, 2013. Urbana, Illinois. See webpage for more details.
http://www.grandprairiefriends.org/rattlesnakemaster13.php

Workshop – Strategic Conservation Planning: How to Better Integrate Conservation and Freshwater Protection. Gathering Waters Conservancy. November 5, 2013. Milwaukee, Wisconsin.
http://www.landtrustalliance.org/about/regional-programs/mw/strategic-conservation-planning-just-add-water

Wisconsin Wetlands Association's 2013 Annual Membership Meeting and Wetlands Awards Ceremony. November 7, 2013. Madison, Wisconsin.
http://www.wisconsinwetlands.org/2013annualmeeting.htm

Saving Indiana's Native Plants and Wild Places. Indiana Native Plants and Wildflower Society 2013 Annual Conference. November 9, 2013. Carmel, Indiana.
http://inpaws.givezooks.com/events/inpaws-2013-annual-conference

Selecting and Planting Trees: The Morton Arboretum Tree Care Conference. November 18 to 19, 2013. Lisle, Illinois.
http://www.mortonarb.org/calendar/article/23307/selecting-and-planting-trees-the-morton-arboretum-tree-care-conference.html

2013 North Central Weed Science Society Meeting. North Central Weed Science Society and Midwest Invasive Plant Network. December 9 to 12, 2013. Columbus, Ohio.
http://www.ncwss.org/meeting-page2.php

If you have a conference or event that you would like listed in this section in future newsletters please email the information to Troy Anderson (TCA.ecology@gmail.com).

2014 MIDWEST-GREAT LAKES SER CHAPTER MEETING UPDATE

The Board of Directors has selected the University of Minnesota in St. Paul, Minnesota as the location of the 2014 Midwest-Great Lakes SER Chapter Meeting. The meeting will be held from Friday March 28 to Sunday March 30, 2014. The theme of the meeting will be "Building on the Midwest Legacy of Restoration: Linking Theory and Practice". We are grateful for the support of our generous meeting host – the University of Minnesota's Department of Bioproducts and Biosystems Engineering and our meeting sponsor the University of Minnesota's Department of Fisheries, Wildlife, and Conservation Biology.

Tentative Notification Dates and Deadlines:

November 2013 - Call for abstracts for contributed presentations, symposia, and workshops released

January 2014 – Deadline for contributed abstracts, symposia proposals, and workshop proposals

February 2014 - Release of registration flyer with information on registration costs, speakers, and tentative meeting schedule

It is going to be another great Chapter meeting. So we encourage you to start planning on attending the 2014 MWGL SER Chapter Meeting.

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Rocky Smiley (editor)
Liam Heneghan
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