

SERNEWS



ANNIVERSARY

Restoring the Earth since 1988

30 YEARS OF SER

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REFLECTING ON THE PAST, PRESENT, AND FUTURE OF ECOLOGICAL RESTORATION

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SER: FROM DREAM TO REALITY



Bethanie Walder Executive Director bethanie@ser.org

Restorationists like to dream. We envision a future where natural systems can recover from the degradation and damage of past and current human activities. Thirty years ago, John Rieger, Bill Jordan, Anne Sands, and John Stanley got together to dream – not just about their work to restore degraded ecosystems, but also about the creation of an organization, the Society for Ecological Restoration, to enable restorationists to share, learn from, and explore the science and practice of restoration together.

While the first meeting and discussions about SER started in 1987, the Society was officially incorporated on September 28, 1988. Since then, SER has grown to include 13 active chapters, with nearly 3,000 members in more than 75 countries around the world. I invite you to explore our story, including reflections from John Rieger, SER's first Board President and Jim Hallett, SER's current Board Chair who illustrate how the Society has both stayed true to its roots (providing a means of communication and learning) while growing and branching out in new directions (international policy, certification). The following pages also includes comments from other former SER leaders, an update on a handful of our past award winners, testimonials from some of our partners, and a timeline of SER's milestones, conferences, chapter development, and policy activities since our inception.

It's inspiring to look back on our history, and to use that history as a foundation for our future actions. Perhaps that concept of looking back and looking forward at the same time provides an interesting echo to the contentious debate over novel ecosystems and reference areas that has occupied many SER leaders over the past few years. I raise this, because one of the important roles that we play as a professional society is to provide a space for philosophical and scientific debate about a wide variety of issues related to the science, practice, and policy of ecological restoration. While we may not always do that perfectly, it is certainly our intent that the Society provides an open, collegial, and constructive space for people to participate in and advance these important discussions – at our conferences, on our field trips, and within the pages of *Restoration Ecology*.

As a professional society, our founding and mission are to serve the people who work in this profession. SER is constantly striving to provide resources and mechanisms to enable practitioners to engage with each other, to share innovations, and to improve their practice. The Certified Ecological Restoration Practitioner (CERP) program is one of our most important recent accomplishments to help improve the practice of restoration. Our new Restoration Resource Center is also a dynamic tool for sharing project-based innovations and learning. And our chapters continue to provide excellent conferences, field trips, webinars, discussion groups and other meet-ups to create networking and knowledge sharing opportunities.

SER's mission, however, goes beyond providing resources. It includes advocating for and advancing the entire field of ecological restoration, as articulated in Jim Hallett's article. We are working to improve both the quality and quantity of restoration happening on the ground by engaging with decision-makers, policy-makers, and scientists to increase investment in, and understanding of, high quality restoration.

Nearly all of our successes are thanks to the dedication and passion of SER members who volunteer their time, at the chapter or international level, to help SER meet its mission. We continue to dream, not just about stopping ecological damage, but reversing it. On SER's 30th Anniversary, we can look to the future and envision a healthier and more liveable planet thanks to local and international community engagement in both small and large restoration projects. SER's founders' dreams became reality; hopefully ours will, too.

SER: THE FIRST 30 YEARS



John Rieger First SER Board President

At the time of SER's founding in 1988 (originally as SERM – Society of Ecological Restoration and Management), ecological restoration was just beginning to gain traction and legitimacy as a discipline. The preceding decades had ushered in a recognition by many that ecological restoration was essential to meeting other well-established land management goals of preservation and conservation given the extent and rate of ecosystem modification inflicted by humans. However, early restoration practitioners and researchers were geographically scattered and largely focused on their own systems and projects. Despite the existence of several ecosystem- and region-specific restoration groups, there was no overarching organization that served to connect practitioners, scientists, students, and others working in ecological restoration. SER's founders recognized a need for such an organization, a need voiced by co-founder William (Bill) R. Jordan III during a keynote address at the 2nd Native Plant Revegetation Symposium in 1987. After a subsequent series of conversations among Bill, John Stanley, and myself, we announced the idea of forming this new organization in a guest editorial article I wrote for Restoration and Management Notes (<u>A National Restoration Association</u>).

In the article, I elaborated on a vision for such an organization – to serve as an overarching society that provided a means of communication and learning through conferences, publications, classes and workshops. These services would fill in gaps both for local organizations that lacked the means to provide services directly, and to individual members that were not near already established groups. In effect, we imagined SER as a facilitator to encourage local and regional activity. Ultimately, SER would serve as a platform for communication, education and exchange of ideas and techniques within the rapidly growing field of ecological restoration. The increasing interest in restoration during this time was accompanied by an ever-growing number of new approaches and research findings, which further underscored the need for more dialogue and a centralized organization that could track and facilitate the communication of these developments.

In September 1988, SER was officially incorporated, with the stated goal of "promoting the scientific investigation and execution of restoration." The founding members saw a number of ways in which SER could fulfill the vision and goals outlined above. The first clear step was to host a meeting to bring together the diverse array of individuals working and contributing to the field. We held the initial conference in Oakland, California in 1989 to get a sense of the existing, relatively unknown restoration community. We were pleased by the attendance, and in particular, the significant participation by restoration practitioners (over 50%) and women (nearly 40%). Facilitating communication amongst practitioners, researchers, and agency/governmental personnel was key to our goal of achieving meaningful advancements in on-the-ground restoration activities, and the first conference helped to jumpstart that process.

Next steps included expanding communication opportunities via written publications. In addition to publishing the SER newsletter, we began negotiations to create the *Restoration Ecology* journal. William Niering (editor) and Edith Allen (associate editor) gave life to the idea and some very important papers were published in the first five years of the journal. *Restoration Ecology* helped meet our goal of ensuring an avenue for the communication of restoration research. Our early partnership with the publishing company, Island Press, also contributed to that goal via the Science and Practice of Ecological Restoration book series that continues to this day. Various forms of written publications proved to be a significant and financially viable means of facilitating communication on ecological restoration from the early days of the Society.

From the outset of SER we also knew it would be at the local level that the greatest impact would be made; after all, restoration ultimately occurs at the local, project scale. As I wrote in the article initially proposing the establishment of SER:"We as practitioners

of restoration biology owe it to the ecological communities we try to duplicate to become more sophisticated, coordinated and organized."

To that end, we established an easy means of creating regional chapters to encourage the development of a network that could serve the needs of regional community types and the problems characteristic of a particular area.

Designed with a global reach in mind, SER immediately had significant conferences, field trips, and demonstrations being conducted throughout the world. Another element of our vision was happening. However, finances were another matter. SER was not well financed and struggled to provide the remaining elements of the vision, that of providing financial support either by grant or loan for local chapters to hold their own functions and conferences.

Much has changed since the founding days of SER – for one, the field of ecological restoration is no longer in its infancy. Indeed, the mainstreaming of restoration on the international stage, and its recognized role as an important part of climate change and other commitments means that both the global and local reach and vision of SER is more important – and exciting – than ever. But that global engagement should be balanced with continuing to serve a diverse mix of individual members that includes practitioners, academics, and land managers. I believe that academic research and publication is a necessary element for practitioners to advance in performance. The active participation of practitioners in SER remains critical to SER's success. Thus as SER continues to expand its international policy engagement, it must also continue to provide services to its chapters and members by supporting its news certification program, conferences, symposia, workshops and other learning vehicles, so that members who are not near a chapter or are limited by their own situations, can benefit from the resources of SER. A successful Society need not be evaluated on the basis of membership numbers, but on the value of the content it provides to its members and to the field.



1992- SER Founders- Bill Jordan III, John Reiger, Anne Sands, John Stanley (August Conference)



PAST LEADER PERSPECTIVES

We asked our past board leaders for their thoughts and perspectives from the past 30 years of ecological restoration and SER. Find out how the field has changed, where they think the field is going, and words of wisdom for future restorationists!

HOW HAVE YOU SEEN THE FIELD OF RESTORATION EVOLVE OR CHANGE SINCE YOU LED THE ORGANIZATION?

Keith Bowers

Climate change, accelerated losses of biodiversity, urbanization and over consumption of natural resources are challenging the practice of ecological restoration like never before. Not only do we need to take a look back to better understand how ecological systems have functioned, more than ever we need to look forward to better forecast how ecological systems will respond to rapidly changing environmental conditions.

John Rieger

Probably the most significant change is that the field of restoration has now become part of almost every major governmental and conservation organization. In 1988 there was essentially no mission statement that had restoration as one of its goals or even mentioned the term. The establishment of SER was the spark that caused the change.

Edith Read

We now have a lot more documentation of restoration projects that succeeded or failed based on what was done (or not done).

WHAT DO YOU THINK IS THE "NEXT BIG THING"? WHERE DO YOU SEE THE FIELD GOING IN THE NEXT 30 YEARS?

Al Unwin

Our ability to transition and influence global economic systems to consider ecosystem services and natural capitol in a real and substantial way. We need global scale investment in ER and will require large scale financial institutions like the World Bank to see that ER will assist in securing their investments in a real substantial and enduring manner well into the future.

Cara Nelson

Now that restoration has been mainstreamed, it is critical to focus on innovative technologies to ensure effective ecosystem repair as well as the principles and standards of practice needed to maximize benefits from restoration interventions and investments. Over the next 30 years, I expect increased engagement in SER's practitioner certification program, as well as growth in training and education experiences.

Eric Higgs

From a policy perspective, it is important to conjoin or link more effectively some of the allied practices that incorporate ideas of restoration: ecological restoration, forest landscape restoration, rewilding, and ecological design. This will strengthen the effectiveness of restoration as a wide-ranging approach at all scales.

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"As the world faces the nefarious effects of the Anthropocene Era, ecological restoration stands in the way of destruction and indeed offers a positive on-the-ground relationship with the environment."

- Nik Lopoukhine

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WHAT'S YOUR BIGGEST ADVICE FOR EMERGING PROFESSIONALS IN THE FIELD?

Eric Higgs

Work across disciplines and sectors, which involves some risk but yields great benefits in durable restoration. Listen carefully to people, especially those who depend on ecosystems for livelihood. Be creative.

Andy Clewell

I urge emerging professionals in restoration to immerse themselves in biodiversity familiarization and a holistic understanding of native ecosystems. Purchase a plant press or an insect net and wear it out. Become intimately familiar with all of the natural areas in your region in every season. You will be amazed at how your expanding knowledge of natural history translates into good restoration practice.

Cara Nelson

In order to be able to effectively restore ecosystems, it is necessary to understand how ecosystems assemble, function, and change in response to disturbance. My advice to early career professionals is to develop a strong foundation of knowledge about ecological systems (from genes to landscapes) and to make sure to bring that knowledge into restoration practice.

John Rieger

Talk to people that have been doing – not just talking about – restoration. You never know what might trigger a new idea. Learn from your current work, always look at how you can modify, improve, economize, etc. Try, if possible, to incorporate an experiment within a project so you can validate an approach or discover the true efficacy of a technique.

Edith Read

Use data and experience of those who came before. While every site has its unique challenges, a lot can still be learned from what many projects have in common, such as setting realistic goals and performance criteria.

Al Unwin

Never stop learning, never stop listening, never stop reading, never stop observing, and MOST important – NEVER stop trying. The planet needs you!

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Ecological restoration actively engages our spirit, our consciousness, our knowledge, our experience, and our passions to heal our connections to the biologically rich world in which we live.

- Keith Bowers

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PAST SER BOARD MEMBERS

BOARD MEMBERS

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John Rieger 1988-1993

Andre Clewell 1993-1995

Nik Lapoukhine 1995-1997

George Gann 1997-1999

Edith Read 1999-2001

Eric Higgs 2001-2003

Keith Bowers 2003-2007

George Gann 2007-2009

Jim Harris 2009-2010

Steve Whisenant 2010- 2013

Cara Nelson 2013-2015

Al Unwin 2015-2018



SER has recognized the achievements and contributions of individuals and organizations with over 50 awards in the past 30 years. We reached out to past recipients to find out what they've been up to and how SER has impacted their career. We're pleased to present a sampling of the responses we received. We invite everyone in the SER community to share your reflections with us. Share a photo of your work and tell us how SER has helped your work. Use #SERestoration.

JOY ZEDLER, THEODORE M. SPERRY AWARD (1995)



The Society's Theodore M. Sperry Award honored Dr. Joy Zedler in 1995. Joy Zedler has not only been a leader in California in the conceptualization of salt marsh restoration projects, but she has also focused much of her research on the evaluation of restoration success and the development of restoration methods. At the Sweetwater Wetland

Complex in San Diego (a San Diego Bay salt marsh), Joy led the Pacific Estuarine Research Lab in an extensive study comparing the functional aspects of a constructed salt marsh to a nearly natural marsh (the Paradise Creek Marsh). This pioneering research effort focused on evaluating a broad suite of ecosystem functions and resulted in numerous publications, from a handbook outlining methods for evaluating restoration success to scientific journal publications.

In the 23 years since I received the Theodore Sperry Award, graduate students and postdocs have helped develop adaptive restoration by testing theories and practices in restoration sites—in southern California (eBook, trnerr. org) and later in Wisconsin (new eBook, http://www. town.dunn.wi.us/land-use/historic-documents/). In 1998, I was privileged to become the Aldo Leopold Professor of *Restoration Ecology* at UW-Madison. At the Arboretum, I used Ted Sperry's legacy prairie plantings to help academic offshoots flourish in academia, conservation, restoration

practice, wetland regulation and management, land care policy, and more.

The 1995 Sperry Award had acknowledged earlier studies in San Diego Bay, where students and I reintroduced the endangered salt marsh bird's-beak in 1990. Now, with population data spanning 26 years (a rare record), the dynamic population is finally understandable! Our forthcoming paper, (Greg Noe, Meghan Fellows +6) explains our wildly varying counts by using often-neglected data on extreme tidal ranges, which peak every 18.6 years. There's a lesson here—don't cease monitoring after only a decade or two!

Although retired from UW, I still bring science to bear on California's Bay-Delta, another great privilege, along with enjoying our daughters and immersing the grandkids in Nature.

SER'S IMPACT ON JOY'S WORK: Globally, SER transformed the science and practice of restoration—like turning an acorn into a solid oak tree with farreaching branches that disperse propagules around the world. I was a 'sapling' when SER began to germinate. I learned to restore wetlands when and where there were opportunities to create large field experiments. It helped to share knowledge with a group.

DAVID POLSTER, JOHN RIEGER AWARD (2013)

David Polster received the John Rieger award in 2013 in recognition of his important and ongoing contributions to ecological restoration and SER. He was one of the founders of the British Columbia chapter and has served as its treasurer since the chapter was founded. He was also treasurer for the organizing committee for the 2004 SER meeting at the University of Victoria. Dave has 30 years of experience as a restoration practitioner, regularly teaches students at the University of Victoria, and is respected across Canada for his innovative work in restoration and reclamation.

I have taken the definition of ecological restoration literally and developed systems for recovery that provide "assistance" to natural processes - for example, the "rough and loose" system of grading creates ideal sites for seeds to lodge in and plants to grow and eliminates the need for grass and legume seeding. I have used this system on large sites such as the Heber Dam and the Johnson's Landing landslide (naturally rough and loose). By understanding how natural systems have "restored" following natural disturbances (everything from riverbanks to landslides), these systems can be adapted to restore human-disturbed sites. The key is to identify the filters or constraints that are preventing these natural systems from functioning. In the case of many large mine sites, compaction and steep slopes are the primary filters, while on riverbanks, the flow of the water past the bank is what generally causes the erosion and prevents recovery. Simple treatments such as the rough and loose grading can be used to address compaction and create sites that will naturally recover while a simple soil bioengineering technique known as dense live staking recreates the dense cover of riparian vegetation that has been holding streambanks together for millennia.

SER'S IMPACT ON DAVID'S WORK: The International Standards are an excellent example of how SER fosters the interchange of ideas. SER solicits feedback and discussion from the greater restoration community to ensure continual improvement of the Standards; it is by listening to, and reading materials prepared by colleagues,

that we can hone our skills and knowledge and move the field forward. Of course, the conferences do this as well, so I try to attend both local SER conferences as well as our international conferences. In addition, the certification program is a great way to identify folks to pay attention to. I am on the continuing education committee so I am often learning about educational elements that folks are proposing that again broadens my outlook on ecological restoration. The ability to interact with other ecological restoration experts is one of the most important aspects of my involvement with SER. I am looking forward to South Africa!

I use my award as part of my introduction when I am teaching restoration courses as it is a big part of who I am - I then go on to talk about the definition of ecological restoration as that forms the foundation of what I have found to be the most effective restoration strategies. It is by weaving things like the definition of ecological restoration and the Standards into my courses and my daily work in restoration that SER is integrated into my life. One aspect of ecological restoration that I think is really important is the social/spiritual aspect. For example, when I was restoring the Johnson's Landing landslide, I recognized that the community was significantly impacted by the slide. In suggesting restoration strategies, I started by teaching a restoration course in the community so that folks would have some ideas about how to restore following a major disturbance. I then suggested that local people be hired to do the restoration work. One of the people from the community who is interested in the landslide was actively collecting alders seeds and thus engaged in the restoration. So for her and others in the community, the restoration of the landslide has become an integral part of her life by the slide. This is the social aspect of ecological restoration.



Dam area October 2012; Photo courtesy of Dave Polster



Dam area July 2017; Photo courtesy of Dave Polster

SAMUEL ISRAEL LEVY TACHER, FULL CIRCLE AWARD (2015)

The Full Circle Award recognizes restoration projects that incorporate the traditional knowledge of indigenous peoples in significant ways and reflect a balance between indigenous and non-indigenous knowledge and practices. SER presented the 2015 award to Dr. Samuel Levy Tacher from El Colegio de la Frontera Sur (ECOSUR) in Chiapas, Mexico for his more than 20 years of field experience working with the region's indigenous Lacandon Maya farmers to understand and apply their traditional techniques for facilitating forest succession after agricultural abandonment. Dr. Levy and his colleagues at ECOSUR have used Lacandon practices to develop innovative approaches for restoring degraded tropical forest land in the region and addressing a number of long-standing social and ecological challenges. They are applying traditional knowledge to the rehabilitation of abandoned pasturelands and the restoration of forest clearings dominated by bracken fern, and are using traditional resource management strategies of local Mayan communities to promote landscape-level connectivity throughout the region. Dr. Levy's work exemplifies the principles of the Full Circle Award and has played an important role in improving local livelihoods and well-being.

SER'S IMPACT ON SAMUEL'SWORK: The recognition I received from SER helped me to call the attention of some Mexican research institutions to the importance of traditional ecological knowledge to carry out ecological restoration and conservation actions. In particular, I am referring to the project that I currently carry out in the Yucatan Peninsula (YP) in relation to the Mayan community forest reserves (MCFR). These reserves play an important role in agricultural landscapes in Mexico's YP, as they provide forest products and a broad variety of benefits that guarantee the livelihoods of the local people. We identified a series of local norms and practices that Mayan peasants of the YP use to conserve their MCFRs while also making use of them for self-subsistence. These reserves – locally known as kaláantbi k'áax and fundo legal – which are largely composed of mature vegetation (80%) and form part of the Mayan villages' collective land holdings, are conserved collectively according to the principle of the common wealth. MCFRs sustain a high level of plant diversity, which includes a large proportion of endemic species. They provide the local population with forest products, as well as a broad variety of environmental services. This type of forest reserve – which forms a network of biological connectivity that includes at least 200 villages – is found nowhere else on the American continent.

We consider the MCFR to be a model of biological conservation, restoration and sustainable use that may be very useful to government agencies and non-governmental organizations in fomenting community actions and public policy to promote conservation and sustainable use of natural resources. These forest reserves may provide an excellent example of natural resource use, conservation, restoration and biological connectivity in other areas of the world, as well as in other villages in the YP that do not contain MCFRs or that are degraded.



External border of the Mayan community forest reserve in Libre Unión,Yaxcaba, Yucatán; Photo courtesy of Samuel Israel Levy Tacher



Entrance to the MCFR in Tepich, Quintana Roo, Mexico; Photo courtesy of Samuel Israel Levy Tacher

BARBARA DEAN, COMMUNICATION AWARD (2015)



The Communication Award recognizes individuals that have made a significant impact in advancing the theory, practice or public awareness of restoration through innovative communication strategies. SER presented the 2015 award to Barbara Dean, retired Executive Editor of Island Press, for her dedication

to building the Press's Ecosystem Studies program during a career spanning more than 35 years. In 2002, Barbara embraced the concept of a collaborative book series with SER, "The Science and Practice of Ecological Restoration," which has grown to include over 28 titles. The Series has become the foremost forum in the world dedicated to advancing restoration science and practice through book-length treatments, and Barbara has worked tirelessly and creatively with dozens of dedicated natural and social scientists, professional practitioners, historians, and writers. The resulting books expand our understanding and communicate to broad audiences how ecological restoration and restoration ecology can help communities, nations, and global society make the urgently needed transition towards a sustainable and desirable future.

SER'S IMPACT ON BARBARA'S WORK: Looking back, I realize how fortunate I was to join SER soon after its inception—and to attend the first SER conference in Oakland, California, in 1989. Those early interactions helped us at Island Press (then a young, small, nonprofit

publisher with an environmental focus) to recognize that the ecological restoration / restoration ecology subject area was an excellent match for the goals and approach of our publishing program: Island Press and SER were both science-based and mission-oriented nonprofits, with interdisciplinary styles, and a compatible audience mix (professionals and practitioners).

In the 1990s, Island Press published several volumes on restoration topics – including the now-classic The Tallgrass Restoration Handbook (Packard/Mutel, '97). By early 2000, after extended discussions with SER, "The Science and Practice of Ecological Restoration Book Series" was officially launched. From the beginning, the series was a collaborative endeavor, with James Aronson and Don Falk representing SER in important discussions about the scope of the series and its audience. Once we had proposals in hand, input from the SER editorial board on manuscript reviews, prospective authors, marketing possibilities, and insights about the direction of the field was critical to building a robust, diverse, timely list of books. From my current vantage point of having retired three years ago, I am very pleased to note that the Series has grown to twenty-eight books.

Developing this Series was challenging, exciting, frustrating, complicated...and fun. Today I am involved in developing a river restoration project here in northern California, and I pull SER series books off my shelves almost daily to guide planning, fund-raising, and mapping. Long live the Series! May it continue to nourish hope for our global future.

WHAT SER PARTNERS ARE SAYING

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SER has been a leader in promoting the practical application of restoration science around the world not only as means of recovering what we have lost but as a sustainable vision for ensuring human health and livelihoods. The Society's efforts, through its publications, conferences and networking, have helped to mainstream ecological restoration within a number of international agreements, thus elevating its profile as a critical component of national sustainable development agendas.



United Nations Convention to Combat Desertification

Building on the growing base of scientific understanding, SER has been pivotal in highlighting the evidence that ecological restoration can be a practical and cost-effective tool underpinning country-level efforts to improve the quality of life for all species. More importantly, it has been part of a paradigm shift in government policy from short-term fixes to long-term solutions that improve resilience, conserve critical habitat and promote economic growth.

By participating in global partnerships, issuing guidance and standards, and demonstrating how to take advantage of restoration opportunities, SER has given the international community much needed tools for implementing successful projects at the local and national level. As the restoration economy continues to bear fruit, we expect SER to lead the way with innovative approaches and cutting edge solutions to the environmental challenges we face today and into the future.

- Sasha Alexander (Policy Officer) and Barron Joseph Orr (Lead Scientist), United Nations Convention to Combat Desertification

STEVEN N. HANDEL, THEODORE M. SPERRY AWARD (2011)



The Society conferred the 2011 Theodore M. Sperry award on Dr. Steven Handel of Rutgers University and the Center for Urban Restoration Ecology. The Theodore M. Sperry award honors

individuals who have made significant advancements to the science and/or practice of ecological restoration. Dr. Handel is a pioneer in the restoration of urban sites, particularly highly degraded urban sites. He is best known for his work at the Fresh Kills Landfill on Staten Island and Brooklyn Bridge Park in New York, Orange County Great Park in California, and the landscapes surrounding the 2008 Olympic Games sites in Beijing, China. In addition to his work on urban sites, Dr. Handel has dedicated a significant portion of his career to advancing the Society, such as serving on the SER Board of Directors for four years, and as Associate Editor of Restoration Ecology, the Society's professional journal. Currently Dr. Handel is Editor of Ecological Restoration, an affiliated journal that extends the Society's reach and strengthens ties with practitioners, philosophers, academics, and scientists.

I always liked plants. I worked alone. I was curious to find out if urban land could be made into reasonably functioning woodlands. I started working on landfills in New York City doing National Science Foundation-sponsored research on the initiation of populations. One thing led to another and some landscape architects asked if I could help in a design competition to build a park on a landfill. I then realized that plant ecologists could profitably collaborate with designers and this opened up a new chapter in my life. After receiving the SER Sperry Award, I was encouraged to work harder on this and get others involved. So, I accepted a professorship at Harvard's Graduate School of Design, the nation's largest landscape architecture program, to introduce more ecological thinking to the curriculum. I am hoping this will have wider influences on how future landscape designers are trained and work.

SER'S IMPACT ON STEVEN'S WORK: Being in SER and attending the international meetings, I saw the deep commitment and wide actions of so many restoration ecologists. I know that I no longer work alone, but I'm a member of a growing group of land managers and ecologists striving to improve our landscapes. The work is very hard. We get spotty support from funders and from government agencies. The field conditions have become ever more stressful with invasive species and climate change challenging the outcomes of even the most carefully designed projects. I have learned that passion for our work and support from our restoration community are just as important as technical training and skills in experimental design. I'm the editor of the journal Ecological Restoration now, and in that way hope to encourage so many others to keep up the work.



What can we do with this urban landfill?; Photo courtesy of Steven Handel

WHAT SER MEMBERS ARE SAYING

"In the hectic nature of the past few years, I had not kept up with what a treasured resource SER is. It is great to be re-connected again."

- John Morgan

EDITH ALLEN, JOHN RIEGER AWARD (1999)

Dr. Edith Allen was awarded the John Rieger Award for over 15 years of ecological research and teaching. Dr. Allen's research projects address the restoration techniques of the scrubland of the southwest. Dr. Allen has been very active in the Society since its founding. She was one of the first directors, was elected as the first Secretary of the Society, and has served as an editor for Restoration Ecology. She has also organized sessions in restoration at meetings of other societies. Most importantly, Dr. Allen is an effective instructor and guide to those studying restoration.

I was so pleased to receive the John Rieger Award in 1999 for my service to SER. That year I was appointed Editor of Restoration Ecology following the sudden passing of our first Editor, William Niering. I had already served as Associate Editor, and was a founding member of SER and secretary of the Board of Directors. John Rieger, the first SER president and a driving force in founding the society, was a great mentor in my early career. I was fortunate to live in San Diego at the time and do research on John's CalTrans restoration projects. When SER became a reality, I jumped at the opportunity to be part of an international organization devoted to restoration. From John and other Board members such as Andy Clewell and Bill Jordan, I learned how to be effective in moving forward the agenda of our new organization, and how to identify gaps in research that can be applied to real-world restoration situations.

WHAT SER PARTNERS ARE SAYING

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For more than 10 years, IUCN's Commission on Ecosystem Management (CEM) has considered Ecological Restoration one of the key areas of the Ecosystem Approach, a central component for the achievement of the Convention on Biological Diversity objectives. The Thematic Group on Ecosystem Restoration is one of the commission's oldest and most active groups. It benefits from the active participation of people very involved with SER such as David Lamb, Carolina Murcia, Keith Bowers and Cara Nelson, among others.



CEM has actively worked with SER in the development of several symposia within Restoration Congresses, presenting case studies showing links between ecological restoration and biodiversity, as well as showing contributions from restoration to address climate change impacts either by mitigation or adaptation. In 2017, CEM partnered with SER to organize a Forum on Biodiversity and Global Forest Restoration, discussing issues and solutions around three broad themes: 1) assessing and prioritizing restoration actions; 2) promotion of international standards for ecological restoration; 3) and policy and governance needs for inclusion of biodiversity in restoration. The result of the forum was the identification of 18 priority actions that address issues related to improving biodiversity outcomes in forest restoration, while still delivering essential ecosystem services. The priority actions provide a rich framework for collaborative work, facilitating partnerships with organizations and specialists in a variety of fields over the next two to three years.

We hope to continue our partnership with SER and others to develop these initiatives and highlight the importance of restoration to achieve the commitments of the Conventions on Climate Change, Combating Degradation and Desertification, and Biological Diversity, as well as the Sustainable Development Goals.

- Angela Andrade (Chair), Commission on Ecosystem Management, International Union for Conservation of Nature

SER'S IMPACT ON EDITH'S WORK: Ecologists prefer to base our work on broad general principles, but from SER practitioners, I learned that actual restoration requires site-specific solutions. However, the availability of site-specific research may limit application. I was able to pass on these lessons to my undergraduate and graduate students at San Diego State University and the University of California, Riverside, a number of whom are working today in land management and research in restoration. It has been a highlight of my career to be part of such a forward-looking organization.



Edith in Portugal, April 2011, searching for red brome, which is invasive in California; Photo courtesy of Edith Allen

JUNGUO LIU, COMMUNICATION AWARD (2017)



Communication Award The recognizes individuals that have made a significant impact in advancing the theory, practice or public awareness of restoration through innovative communication strategies. SER presented the 2017 award to Junguo Liu, who founded ecological restoration two organizations in China: Society Ecological Rehabilitation for Beijing and the Union of Societies for Ecological Restoration and Environmental Protection.

Through his vision, efforts, and accomplishments, Dr. Liu brought ecological restoration to the forefront as a critically needed discipline in China. He surmounted enormous institutional obstacles in creating restoration societies for the first time in China.

The SER Communication Award was a substantial recognition of my previous research and extensions on ecological restoration, and it also gives me encouragement for further dedication in this field. After receiving this award, I became more active in promoting ecological restoration in China and all over the world.

In China, as the president of the Society for Ecological Rehabilitation of Beijing (SERB), I am organizing several high-level scholarly forums/conferences each year, and also providing technical support to governments and companies for restoring rivers, wetland, lakes, forests and

other degraded ecosystems. In recent years, ecological restoration has become a hot topic in China, and the government has started to make a huge amount of effort towards this. As a result, SERB is growing very fast, and our influence has spread to many places in China. For example, we are helping many cities to restore degraded river systems in China, including the capital city Beijing, Jiashan county in Zhejiang province, and the Shenzhen city in Guangdong.

I also pay special attention to bring people together with different backgrounds, disciplines and countries to work on ecological restoration. We have collaborated with over 20 scholarly societies to establish the Union of Societies for Ecological Restoration and Environmental Protection, which is a unique alliance for different stakeholders to collaborate on ecological restoration. I took the lead to organize the 9th World Conference on Ecosystem Services Partnership and brought over 450 experts from 50 countries to discuss restoration and naturebased solutions. I authored Management of Ecological Rehabilitation Projects (with both English and Chinese versions), which as been used as a text book and a main reference for training courses. I am also working on drafting standards for ecological restoration in China as well as for the global communities.

Looking into the future, I'd love to cooperate more with SER, and to promote ecological restoration all over the world. I believe through collaboration we can make a big difference for restoring our degraded ecosystems and for a more beautiful world.

WHAT SER MEMBERS ARE SAYING

"Working in restoration and conservation sometimes feels like 'running against the wind,' but being connected with people having the same issues, has increased my motivation and my enthusiasm to keep working in this amazing field."

- Emanuela W.A. Weidlich

The timeline below outlines SER's activities, accomplishments, and key milestones. It also illustrates where our conferences have been held over the years, when our different chapters were established and important international policy activities. We want to be clear that this timeline does not include all of the amazing activities of our regional chapters - it would fill this entire newsletter to include all of the amazing work that has been done by all SER affiliated entities.



Publications



	2000			20	004			
1998	Island Press Series, The and Practic Ecological Restoration launched	s Book Science e of n,	200	02	Internation on Ecologi Restoratio	nal Primer cal n	2006	
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Publications

SER SOCIETY FOR ECOLOGICAL RESTORATION

2012 2016 2008 **Opportunities** for Investing in Our Integrating Ecological Ecological Infrastructure: The **Restoration & Economic Rationale Biological** for Restoring our Conservation 2010 2014 2018 Degraded within the Ecosystems Ecosystem Approach International Headquarters Standards for Partnered with CBD Ecological Sent 1st delegation moved from Restoration for the Practice of & Forest Ecosystem to a Convention Tucson, AZ to Protected Areas: Ecological Restoration Inititiave on Biological Principles, Washington, DC Conference on to deliver case study Diversity (CBD) Restoration Guidelines and Best Ecological and COP in Bonn, report on CBD's Organized side Practices (with Germany Ecosystem Short Term Action event on Parks Canada and Restoration (with IUCN) restoration for UN Plan on Ecological Europe Global LERS and CBD COP 10 Restoration (to be Joined Hyderabad restructuring Midwest-Great National Call for a released []-[8] Worked with the adopted/ Lakes concerted effort Conference on UN CBD to implemented on ecosystem Launched Business Ecosystem Ecological support restoration Restoration) Memberships Restoration as a incorporating Ramsar Briefing Tool for Reversing restoration into Note 4:The Restoration Ecosystem the Aichi Targets Benefits of Wetland Resource Center Fragmentation (Target 15) Restoration Certified Ecological 4th World 6th World **Restoration Practitioner** Conference: Conference: program Merida, Mexico Manchester, Ist thematic Partnering with Nature: The 3rd World England section: Case for Natural Conference: Southwest Large–Scale Perth. Australia Regeneration in Forest and Ecosystem Landscape Restoration with Restoration 2nd thematic Australasia Forest Ecosystem Restoration Section (LERS) section: Initiative, CBD, and others Ecological International Great Basin Restoration and Launched Lifetime Network for **Rare Species** Memberships Seed-based Code of Ethics Management in Restoration 7th World Conference: adopted Response to 5th World Iguazu, Brazil Climate Change Conference: 2015 2011 Madison, USA Forum on Biodiversity and Global Forest Restoration with IUCN-CEM-Ecosystem Restoration Thematic Group 2009 2013 2017

Publications



RESTORATION ECOLOGY 25TH ANNIVERSARY

In 1993, SER launched its flagship journal, *Restoration Ecology*. As SER president John Rieger wrote at the time:

"Despite the attention and worldwide acceptance of the restoration concept, there has been no single place in which to publish results of research. We in the Society for Ecological Restoration are pleased to make this journal available in the hopes of facilitating communication among researchers and practitioners, with the goal of advancing the scientific foundation of restoration."

From its founding, the goal of *Restoration Ecology* and SER at large has been to connect restorationists working around the globe. In honor of *Restoration Ecology*'s 25th anniversary, Wiley and SER released a special issue of the top 25 top-cited articles in the journal's history. These articles range from conceptual discussion of the field itself to reviews and surveys of specific biomes and habitats.

When our journal first started in 1993, restoration ecology was only just being recognized as a scientific field. Twenty-five years later, restoration ecology is a critical tool in global efforts to combat climate change and create a more sustainable future.

Enjoy these twenty-five articles, freely available through the end of 2018.

SUBMIT A MANUSCRIPT

OR



MOST CITED ARTICLES

Towards a conceptual framework for restoration ecology

(Hobbs & Norton 1996)

Ecological Theory and Community Restoration Ecology

(Palmer et al. 1997)

<u>Restoration ecology:</u> <u>Repairing the Earth's ecosystems</u> <u>in the new millennium</u>

(Hobbs & Harris 2001)

Exotic plant species as problems and solutions in ecological restoration: A synthesis

(D'Antonio & Meyerson 2002)

<u>Restoration success:</u> <u>How is it being measured?</u>

(Ruiz-Jaen & Aide 2005)

Ecological restoration and global climate change

(Harris et al 2006)



ISLAND PRESS BOOK SERIES THE SCIENCE AND PRACTICE OF ECOLOGICAL RESTORATION

In 2000, SER began a partnership with Island Press to deliver a restoration ecology book series. Since then, we have worked together to deliver 28 books (including several with multiple editions) to advance the science, practice, and policy of ecological restoration. The entire Science and Practice of Ecological Restoration book series can be found <u>here</u>.

The Historical Ecology Handbook January 2001 Edited by Dave Egan and Evelyn Howell

Ecological Restoration of Southwestern Ponderosa Pine Forests May 2003 Edited by Peter Friederici

Ex Situ Plant Conservation: Supporting Species Survival in the Wild

January 2004 Edited by Edward O. Guerrant JR, Kayri Havens and Mike Maunder

Great Basin Riparian Ecosystems: Ecology, Management, and Restoration February 2004 Jeanne C. Chambers and Jerry R. Miller Great

Assembly Rules and Restoration Ecology: Bridging the Gap Between Theory and Practice May 2004

Edited by Vicky M. Temperton, Richard J. Hobbs, Tim Nuttle and Stefan Halle

The Tallgrass Restoration Handbook: For Prairies, Savannas, and Woodlands July 2005 Edited by Stephen Packard and Cornelia F. Mutel

Foundations of Restoration Ecology October 2006 (second edition 2016) Donald A. Falk, Margaret A. Palmer and Joy B. Zedl

Restoring the Pacific Northwest: The Art and Science of Ecological Restoration in Cascadia November 2006

Edited by Richard J. Hobbs, Katharine N. Suding, and Society for Ecological Restoration International

A Guide for Desert and Dryland Restoration: New Hope for Arid Lands June 2007 David A. Bainbridge

Restoring Natural Capital: Science, Business, and Practice June 2007 Edited by James Aronson, Suzanne J. Milton, and James N. Blignaut

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SER moves global society from a history of degradation and destruction to a path of planetary healing, positive change and hope.



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Old Fields: Dynamics and Restoration of Abandoned Farmland October 2007

Edited by Viki A. Cramer and Richard J. Hobbs

New Models for Ecosystem Dynamics and Restoration

January 2008 Richard J. Hobbs and Katharine N Suding

River Futures: An Integrative Scientific Approach to River Repair June 2008 Edited by Gary J. Brierley and Kirstie A. Fryirs

Ecological Restoration: Principles, Values, & Structure of an Emerging Profession July 2008 Andre F. Clewell and James Aronson

Large Scale Ecosystem Restoration: Five Case Studies from the United States July 2008 Edited by Mary Doyle and Cynthia A. Drew

Cork Oak Woodlands on the Edge: Ecology, Adaptive Management, & Restoration April 2009 Edited by James Aronson, João S. Pereira, and Juli G. Pausas

Restoring Wildlife: Ecological Concepts & Practice of Applications May 2009 Michael L. Morrison

Restoring Ecological Health to Your Land April 2010 Steven I. Apfelbaum and Alan Haney

Restoring Disturbed Landscapes: Putting Principles Into Practice November 2010

David J.Tongway and John A. Ludwig

Intelligent Tinkering: Bridging the Gap between Science and Practice August 2011 Robert J. Cabin

Human Dimensions of Ecological Restoration September 2011 Edited by Dave Egan, Evan E. Hjerpe, and Jesse Abrams

Introduction to Restoration Ecology October 2011 Evelyn A. Howell, John A. Harrington, and Stephen B. Glass

Making Nature Whole: A History of Ecological Restoration July 2011 William R. Jordan III and George M. Lubick

The Restoring Ecological Health to Your Land Workbook December 2011 Steven Apfelbaum and Alan Haney

Plant Reintroduction in a Changing Climate March 2012 Joyce Maschinski and Kristin E. Haskins

Tidal Marsh Restoration August 2012 Edited by Charles T. Roman and David M. Burdick

Ecological Restoration, Second Edition: Principles, Values, and Structure of an Emerging Profession January 2013 (now an ebook in Spanish and Portuguese) Andre F. Clewell and James Aronson

Project Planning & Management for Ecological Restoration August 2014 John Rieger, John Stanley, and Ray Traynor

Restoring Neighborhood Streams July 2016 Ann L. Riley

WHAT SER MEMBERS ARE SAYING

"When I attend SER conferences I get energized. I don't have any other way to explain it. I come away full of ideas and inspiration to utilize my skill set and initiate projects."

- Robert Monico

SER: LOOKING FORWARD



Jim Hallett Current SER Board Chair

I am humbled by the opportunity to serve as chair of SER during our 30th anniversary year. It's an appropriate time to consider the vision of our founding members and our trajectory for the next 30 years. SER's first president, John Rieger, described some of SER's original goals to serve as "a platform for communication, education and exchange of ideas and techniques." As part of our 2017 strategic plan, SER revised its mission statement to state: SER advances the science, practice, and policy of ecological restoration to sustain biodiversity, improve resiliency in a changing climate, and re-establish an ecologically healthy relationship between nature and culture. To advance the science, practice, and policy, we require effective communication and knowledge sharing, as outlined by John. As climate change and land degradation demand solutions that include global ecological restoration commitments, we must go further, and synthesize that knowledge to positively influence international restoration policy.

Since SER's founding, our diverse membership of practitioners, scientists, and government leaders has expanded to about 3,000 people in 78 countries. This is just a fraction of those who work in the field and we hope to meaningfully engage with a larger segment of the people involved in ecological restoration. The goals for communication and learning that John Rieger discussed still underlie SER's programs today.

SER's chapter and world conferences provide networking and knowledge sharing opportunities. SER-Europe's recent conference in Iceland, which I was fortunate to attend, drew more than 400 participants from 8 countries; while SER's 2017 World conference in Brazil hosted more than 1,000 delegates from 60 countries across the world. These in person meetings, as well as chapter symposia, field trips, discussion groups, and pub talks, help restorationists engage with one another. And our growing online resources, like interactive webinars and the Restoration Resource Center, help people interact with their colleagues whether or not they can attend in person events.

SER is also recognizing and building from our practitioner roots through the delivery of our Certified Ecological Restoration Practitioner (CERP) program. SER had explored the idea of delivering a certification program for many years. It was exciting to finally launch the program in January 2017, and we are pleased to have nearly 250 practitioners already certified. In our future vision, most restoration projects will be designed and implemented by CERPs, ensuring higher quality restoration delivery on the ground.

The Restoration Resource Center (RRC) re-envisions our previous Global Restoration Network, which enables restoration practitioners from around the world to share their projects and to learn about the projects of others. The RRC is an important tool in our efforts to link science and practice. In the future, we hope that this database will provide opportunities for meta-analyses and other syntheses from on-the-ground projects. The RRC currently hosts more than 250 projects and over 1,000 resources and is freely available to anyone interested in learning more about restoration.

Restoration Ecology, which celebrates its 25th anniversary this year, continues to increase its scope and influence. We will be significantly expanding access to the journal in 2019 through several new programs. This, again, builds on SER's original vision of sharing and expanding knowledge. We are also exploring publication of sub-journals that will focus on specific ecosystems and further expand the scope of the journal. Our first issues will focus on drylands restoration thanks to financial support from the Kuwait Institute for Scientific Research. This and similar efforts will support research and publication from currently underserved areas.

About 15 years ago, SER began engaging in international policy to support initiatives and efforts to restore ecosystems globally. An early and important step was developing SER's International Primer on Ecological Restoration in 2004. SER expanded this work with other

international policy and practice publications, including a 2012 partnership with Parks Canada and IUCN on Ecological Restoration in Protected Areas, and our 2016 International Standards for the Practice of Ecological Restoration. The importance of these and future publications will only grow as global decision-makers cope with the huge extent of modification of terrestrial environments from exploitation, fragmentation, conversion, and abandonment.

One of the first initiatives to address this growing problem was the Aichi Biodiversity Targets of the Convention on Biological Diversity (CBD), adopted in 2010. SER played an important role in ensuring that these targets included ecological restoration, in particular, Target 15 which calls for restoration of 15% of degraded lands by 2020. In 2016, SER supported the development of the CBD's Short-term Action Plan on Ecosystem Restoration, and we are now working with CBD to develop additional implementation tools for the Action Plan, to be released in late 2018, while also engaging in discussions for the post 202 global biodiversity framework.

The global momentum for restoration is significant and can benefit human welfare, increase biodiversity, and mitigate climate change. SER is well-positioned to build on our successes over our first 30 years and to expand our vision to ensure that ecological restoration practice is well-implemented and grounded in the science of restoration ecology. The promise of ecological restoration is extraordinary, but to realize that promise requires the very same effective communication, learning, and knowledge sharing that SER's founders envisioned 30 years ago.

WHAT SER PARTNERS ARE SAYING

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It is my pleasure to join in the celebrations of the 30th anniversary of the Society for Ecological Restoration, a driving force at the science-policy interface on a topic that is at the heart of efforts to ensure the conservation and sustainable use and biodiversity.

Convention on Biological Diversit

Ecosystem restoration is one of the pillars of the Strategic Plan for Biodiversity 2011-

2020 and the Aichi Biodiversity Targets. Aichi Biodiversity Target 15, which calls for 15% of degraded ecosystems to be restored by 2020, has proven a catalytic moment for the restoration agenda. It has inspired momentous policy initiatives such as the Bonn Challenge for Forest Landscape Restoration and New York Declaration on Forests, which now counts with ambitious restoration pledges from many national and sub-national governments.

At COP 13 in Cancun, Mexico, the Conference of the Parties provided further guidance on what the implementation of this Target would imply. The Short Term Action Plan on Ecosystem Restoration adopted on this occasion provides a flexible framework for CBD Parties to apply, alongside with other available guidance such as SER's International Standards for Ecological Restoration.

With the multiplication of restoration initiatives and actors, it is more necessary than ever to understand the value of the actions proposed for biodiversity. SER has been and continues to be a key partner of the CBD in this regard, and we look forward to further collaboration with its international and regional chapters in the lead up to 2020 and preparations for the post 2020 global biodiversity framework.

-Cristiana Pasca Palmer, UN Assistant Secretary General, Head, UN Biodiversity Convention













Every acre of land matters regardless of where it occurs.

- John Rieger

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