



Bridging People, Planet, and Partnerships: U.S. Biosphere Network 2024 Year In Review



**United States
Biosphere Network**

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A LETTER FROM THE CHAIR

Dear USBN Friends,

As we reflect on 2024, I am filled with gratitude and harbor intense optimism for the future of the U.S. Biosphere Network (USBN). This year has been a remarkable journey of collaboration, innovation, and stewardship across the 28 U.S. biosphere regions, each serving as a unique model for sustainable development and conservation.

Your collective efforts exemplify the profound potential of biosphere regions where nature, culture, and community converge. In 2024, the USBN advanced its mission through a series of impactful initiatives, from expanding participatory governance models to integrating cutting-edge science in ecosystem management. Together, we are addressing some of the most pressing challenges of our time—biodiversity loss and fragmentation, climate change, and equitable and just access and management at the landscape level.

A highlight of the year has been our work to deepen inclusive engagement and empower communities within biosphere regions. Through workshops, educational programs, and equitable partnerships, we are ensuring that diverse voices shape the future of these iconic landscapes. Our commitment to knowledge-sharing has strengthened ties within our academic network and included more students and youth in our work. We have built upon a solid foundation of friendship with our Canadian colleagues and broadly across the World Network of Biosphere Reserves, reinforcing the value of international cooperation in pursuing our ecological, social, cultural, and economic goals. We have more work to do in this regard together as the Network serves as a foundational aspect of cooperation, friendship, and peace.

None of this would be possible without the dedication of the biosphere region teams, partners, and supporters. To you, I extend my heartfelt thanks. Your unwavering passion and actionable expertise are the driving force behind our shared successes.

As we look ahead to 2025, I am confident that the USBN will continue to inspire and lead by example, demonstrating how humans and nature can thrive together. Let us carry forward the momentum of 2024, guided by a shared vision of sustainability and resilience.

With gratitude and anticipation,



Jon W. Allan
Chair, U.S. Biosphere Network



WHAT IS THE U.S. BIOSPHERE NETWORK?

We Are A Network of Networks. The U.S. Biosphere Network (USBN) is made up of 28 internationally recognized places across the continental United States, the US Caribbean, Alaska, and Hawai'i called biosphere regions. Communities and organizations work together in biosphere regions to connect people and nature, from deserts to forests, grasslands to rivers, and mountains to oceans and coasts.

Together, we care for the beauty and value of our lands and waters and the benefits they bring to our communities. As part of UNESCO's World Network of Biosphere Reserves, we collectively steward internationally recognized areas of ecological importance, biodiversity, and cultural significance.



Map of 28 U.S. Biosphere Regions. Source: Graham Klag

At the core of our network is the understanding that our quality of life depends on the essential services, tangible and intangible, that nature provides. From fertile soil to flood plains, drinking water to outdoor recreation areas the USBN offers paths for people and organizations to maintain vital environmental, social, and economic benefits.

Voluntary and non-regulatory in our approach, our designation provides a forum for collaboration that is as unique as the communities we serve. This includes traditional conservation areas such as national and state parks, forests, and marine sanctuaries, and other conservation areas, as well as private landowners, economic sectors, youth, indigenous communities, and historically-marginalized communities.

OUR MISSION AND VISION

Our Mission

Foster national and international connections among biosphere regions, facilitate their sharing of best practices, and support their work to connect people and nature.

Vision for the Future

A healthy global environment where people and communities prosper based on shared knowledge and respect for the beauty and benefits of nature.



Building community stewardship through innovative solutions to address environmental challenges.



28 BIOSPHERE REGIONS IN THE US

There are 28 internationally recognized biosphere regions across the continental US, the US Caribbean, Alaska, and Hawai'i.



OVER 48 MILLION ACRES IN THE US

Biosphere regions account for over 48 million acres of biodiverse lands and waters in the US.



759 BIOSPHERES WORLDWIDE

USBN is proud to be a part of the World Network of Biosphere Reserves which has 759 Biospheres in 136 countries across the world.

YEAR IN REVIEW: OUR ACCOMPLISHMENTS IN 2024

U.S. Biosphere Network Funding and Capacity Building

German Commission for UNESCO and Henkel Grant

In collaboration with the German Commission for UNESCO, Henkel AG & Co. KGaA, and the Fritz Henkel Foundation, the U.S. Biosphere Network awarded a planning grant for the Sustainable Food and Environmental Education Program "*Healthy Food, Healthy People, Healthy Environment*" to three U.S. Biosphere Regions:

- **Guanica Forest Biosphere Region:** *Protectores de Cuencas - Nurturing Our Island's Future: A Puerto Rican Sustainability Initiative*
- **Southern Appalachian Biosphere Region:** *Noquisi Initiative - Agricultural Sustainability in Appalachia, Where Modern Science Meets Indigenous Tradition*
- **Champlain-Adirondack Biosphere Region:** *South Hero Land Trust - Abenaki Food Traditions of Vermont: Educator Toolkit*



Guanica Forest Biosphere Region
Photo credit: Protectores de Cuencas



Southern Appalachian Biosphere Region
Photo credit: Noquisi Initiative



Champlain-Adirondack Biosphere Region
Photo credit: South Hero Land Trust

This planning grant will support innovative educational programs focused on sustainable agricultural practices and the integration of food traditions within biosphere regions, advancing USBN's goal of fostering healthy food systems, healthy people, and healthy environments. USBN grant recipients will collaborate with other UNESCO sites worldwide who have also received the grant to exchange ideas, share resources, and explore joint funding opportunities.

National Park Service Grant

The National Park Service awarded a grant to the USBN to provide technical assistance and training and development workshops on activating and building capacity of biosphere regions, with the goal of maintaining requirements of their UNESCO recognition in periodic reviews. USBN's three-part workshop series "Designing Our Next Decade" launched in September 2024 with an online workshop "Making Real Progress in Biosphere Regions," and will feature two additional workshops – a virtual workshop in 2025 followed by an in-person workshop in 2026.

Youth Engagement, Research, and Outreach

USBN Youth Board

Representatives from the USBN Youth Board, Jenelle Booker (Chair) and Katie Darr attended and presented at the UNESCO EuroMAB Youth Conference in Germany, while other youth board members conducted research on public participation in biosphere regions, and facilitated knowledge sharing between US Biosphere Region youth and global MAB Youth Networks.



2024 EuroMAB Youth Conference Participants
Photo Credit: Stefanie Wetzel



USBN SEAS Team (left to right): Samuel Kocurek, Alaina Smith, Sarah Davis, Craig Reiley, Mary Kolley, Sean Skinner, Rongkai Zhong. Photo Credit: USBN SEAS Team

USBN SEAS Team

Seven master's students from the University of Michigan's School for Environment and Sustainability (SEAS), in collaboration with the National Park Service and the USBN Youth Board, are continuing research on organizational strategies from visits to 10 U.S. Biosphere Regions and providing geospatial tools to build capacity in these sites.

Scientist-in-the Park Internship

A nine-month Scientist-in-the-Park internship was funded and recruited at Mojave - Colorado Deserts Biosphere Region in collaboration with the National Park Service to conduct a visitor management and destination stewardship plan.

Biosphere Youth Climate Summits

Biosphere-themed Youth Climate Summits were hosted in partnership with The Wild Center Science Museum in the Champlain-Adirondack Biosphere Region and shared with the Frontenac Arch Biosphere Region (Canada) and Penang Hill Biosphere Reserve (Malaysia), with the aim to further expand the Summits in the World Network of Biosphere Reserves.

UNESCO MAB Young Scientist Award

Xenabeth Lazaro, a USBN Master's student in Ecology and Evolutionary Biology at the University of Helsinki, was one of 15 awardees to receive the prestigious UNESCO MAB Young Scientist Award in 2024. Her research focuses on the behavior and activity of Patagonian bats in the Cape Horn Biosphere Reserve, Chile.

Community-Based Responses to Climate Change

Social-Ecological Climate Vulnerability Assessment

The Southern Appalachian Biosphere Region completed an assessment of social-ecological climate vulnerability and plans to release a geospatial tool for resilience planning in early 2025. The initiative will be expanded to the Congaree Biosphere Region through a new fellowship supported by the U.S. Geological Survey.



Southern Appalachian Biosphere Region
Photo Credit: Grandfather Mountain Stewardship Foundation

Vulnerability Assessment of Key Plant and Animal Species

A vulnerability assessment of key plant and animal species, as well as critical habitats, was completed in the Golden Gate Biosphere Region in partnership with EcoAdapt. The assessment identified species and ecosystems most at risk from climate change impacts, including rising temperatures, shifting precipitation patterns, and sea-level rise. Based on these findings, planning is currently underway to enhance climate resilience across the region.

Transboundary Climate Atlas

In collaboration with the UNESCO Office in Venice and with support from the Aberdeen Charitable Foundation, the Champlain-Adirondack Biosphere Region has launched an innovative online, open-access Climate Atlas. This platform is designed to collect, analyze, and share climate data across the two-state bioregion, offering valuable insights into key environmental issues such as climate change impacts, biodiversity loss, and ecosystem shifts.

Research to Support Endangered Wildlife

Collaborative research on restoring connections between populations of the endangered Sonoran pronghorn identified locations for highway overpasses and facilitated an international workshop at Sonoran Desert Biosphere Region in Arizona, with Center for Large Landscape Conservation (CLLC), the U.S. recovery team and representatives from Mexico. The workshop emphasized cross-border collaboration to support the species' recovery and ensure long-term conservation efforts.



International Workshop at Sonoran Desert Biosphere Region
Photo Credit: Jamie Faselt

International Exchanges

USBN Participates in Key Global Biosphere Reserve Conferences

Technical knowledge and input on biosphere operations increased by USBN participation at the Canadian Biosphere Region Association Annual Gathering, World Network of Mountain Biosphere Reserves Conference, UNESCO MAB International Coordinating Council Meeting, and UNESCO European Man and the Biosphere (EuroMAB) Conference.

U.S.-Canada Biosphere Network Partnership

USBN and the Canadian Biosphere Regions Association (CBRA) continued a collaborative partnership to foster cross-border collaboration and knowledge sharing about biosphere regions. The ongoing partnership aims to accelerate climate action, promote biodiversity conservation, and support sustainable community development among the 19 Canadian and 28 American biosphere



2024 Canadian Biosphere Regions Association Annual Gathering
Photo Credit: Canadian Biosphere Regions Association

region sites. By combining their strengths and expertise, the organizations facilitated regular exchanges of information, expertise, and best practices through workshops, conferences, and digital platforms, while also developing joint training programs and capacity-building initiatives for biosphere region organizations where appropriate.

U.S.-China Collaboration on UNESCO Biosphere Reserves

In June 2024, an introductory meeting in Beijing brought together representatives from the Chinese National Committee for the UNESCO Man and Biosphere (MAB) Program, the US Biosphere Network, and the Mammoth Cave Biosphere Region. Participants discussed U.S.-China collaborations, the structure and functions of China's MAB Program, and opportunities for joint efforts, including the 2025 World Conference on Biosphere Reserves in Hangzhou and the next ten-year action plan. During their visit, the U.S. team also met with leaders of the South China Karst World Heritage Site (WHS) to strengthen the existing NPS Sister Park Arrangement with Mammoth Cave National Park, showcasing the potential for synergy between UNESCO science and conservation programs.

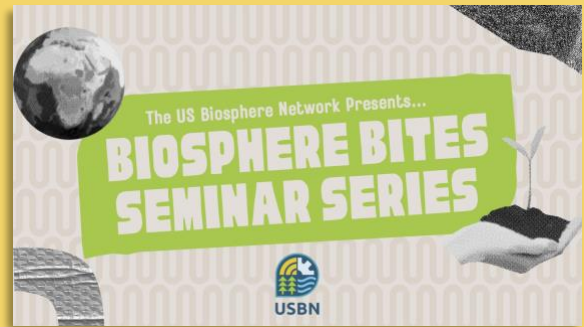
Future Forest Reimagined Binational Workshop Series

The Wildlands Network hosted the Fall 2024 Future Forests Reimagined Webinar Series, a transboundary initiative to protect and restore old-growth forests while planning for future ecologically-managed, climate-resilient forests in the Northern Appalachian-Acadian-Wabanaki (NAPAW) bioregion. Funded by the Champlain Valley National Heritage Partnership and the Great Lakes Fishery Commission, the series connected Biosphere Regions in Eastern Canada and US Biosphere Regions through 8 bi-weekly webinars featuring discussions on forestry best practices, indigenous engagement, and building resilience for ecological recovery and community wellbeing.

Communication, Knowledge Sharing, and Engagement

Launch of USBN's Bi-weekly "Biosphere Bites" Lunch and Learn Series

In March 2024, the US Biosphere Network (USBN) launched the "Biosphere Bites" biweekly webinar series. These 30-minute virtual sessions, held every other week on Zoom, connect biosphere regions and partners by sharing knowledge and resources to advance the sustainable development goals. The series has covered a range of topics, including art in biosphere regions, bioculturalism, insights from the Canadian Biosphere Reserves Association, ecological connectivity, and biosphere regions' role in peacebuilding and diplomacy. All sessions are recorded and available on the USBN YouTube channel.



USBN Workshop Series: Designing Our Next Decade

The US Biosphere Network (USBN) launched a workshop series to empower biosphere region leaders in advancing collaborative conservation and sustainable development. The series includes three sessions: Workshop I (September 26, 2024) focused on progress through collaboration and resource sharing; Workshop II (early 2025) will guide leaders through periodic reviews and UNESCO MAB renewals; and Workshop III (June 2026) will finalize reviews and develop follow-up actions from the 5th MAB World Congress and new 10-year MAB Action Plan.



USBN Launches on Social Media

USBN expanded its outreach with new YouTube, Instagram, LinkedIn, and Facebook channels, alongside the USBN Quarterly Newsletter to enhance engagement and share success stories across the network.

Stay Connected with USBN!

- Tune into [USBN's Biosphere Bites Webinar Series](#)
- Sign-Up to Receive [USBN's Quarterly Newsletter](#)
- Follow us on Social Media:



LOOKING AHEAD TO 2025

As we enter our next phase of growth in 2025, we have three primary areas of focus:

1. German Commission for UNESCO and Henkel Grant

In 2025, the US Biosphere Network (USBN) will strengthen its collaboration with international partners through a key grant opportunity supported by Henkel AG & Co. KGaA and the Fritz Henkel Foundation in collaboration with the German Commission for UNESCO. This grant supports three innovative pilot projects that promote awareness of sustainable agricultural practices and the integration of food traditions and culture within US Biosphere Regions. By leveraging this funding, USBN will focus on enhancing knowledge exchanges with international counterparts, supporting pilot projects that address biodiversity conservation, climate resilience, and sustainable agriculture. This partnership will also pave the way for enhanced cross-border cooperation, while highlighting the achievements of US Biosphere Regions on the global stage.

2. US Biosphere Region Periodic Reviews

The Periodic Review process remains a cornerstone of the UNESCO MAB Program to ensure that Biosphere Regions continue to meet designation standards and goals. In 2025, USBN will support the next round of US Biosphere Region Periodic Reviews, offering technical assistance, tools, and resources to help regions complete this critical evaluation process. By coordinating reviews for regions due in the next reporting cycle, USBN will highlight successes, identify areas for improvement, and enhance regional governance and stakeholder engagement. The insights gathered through the reviews will guide strategies to strengthen Biosphere Region contributions to biodiversity conservation, climate action, and sustainable development.

3. Funding and Capacity Building

Securing sustainable funding and building capacity for US Biosphere Regions will remain a top priority in 2025. USBN will focus on identifying new funding opportunities through grants, partnerships, and collaborative initiatives to support key programs across the network. Efforts will center on developing capacity-building resources such as training programs, workshops, and digital tools that empower Biosphere Region managers and local stakeholders. These initiatives will provide critical support to address challenges like climate resilience, community outreach, and environmental education, while enabling Biosphere Regions to thrive as Is of sustainable development. Additionally, USBN will continue to advocate for federal and philanthropic support to ensure long-term success across the network. Also of critical importance is our ongoing commitment to providing technical support and connectivity between our 28 US Biosphere Regions.



WHO'S WHO AT USBN?

USBN STEERING COMMITTEE

Jon W. Allan, Chair (Ottawa, Michigan)
 Robert Reese, Vice-Chair of Operations (Congaree, South Carolina)
 Melissa Bade, Vice Chair of Planning (Rocky Mountain, Colorado)
 Samuel Cuthell, Secretary (Golden Gate, California)
 Cliff McCreedy, US MAB Focal Point (National Park Service)
 Brian Houseal, USBN Chair Emeritus (Maine)
 Kelly Cerialo, USBN National Coordinator (Champlain-Adirondack, New York)
 Deb Davidson, Fiscal Partner, Center for Large Landscape Conservation (Montana)
 Jenelle Booker, Youth Board Chair (Champlain-Adirondack, New York)

SUB-COMMITTEES

Chris Groves, Chair of Governance Committee
 Katie Darr, Chair of Communication Committee
 David Reynolds, Chair of Sustainable Agriculture Committee
 Social Media Intern, Hanan Vandenberghe

USBN YOUTH BOARD OF DIRECTORS

Jenelle Booker, Chair
 Beata Dewitt, Vice Chair of Operations
 Aidan Lyde, Vice Chair of Planning
 Manar Talab, Secretary

USBN University of Michigan's School for Environment and Sustainability (SEAS) Master's Team

Samuel Kocurek
 Alaina Smith
 Sarah Davis
 Craig Reiley
 Mary Kolleth
 Sean Skinner
 Rongkai Zhong



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OUR PARTNERS

*"The work of the US Biosphere Network is the work of our partners."
-Jon W. Allan, Chair, US Biosphere Network*

USBN PROUDLY WORKS WITH THE FOLLOWING PARTNERS:

- U.S. National Park Service (NPS)
- Center for Large Landscape Conservation
- The Stewardship Network
- NPS Rivers, Trails and Conservation Assistance Program
- NPS Scientists in Parks and Stewards Individual Placements
- Cooperative Ecosystem Studies Units Network
- George Wright Society
- Canadian Biosphere Regions Association
- Commission on Environmental Cooperation
- German Commission for UNESCO
- Henkel AG & Co and the Fritz Henkel Foundation
- UNESCO World Network of Biosphere Reserves
- National Oceanic and Atmospheric Administration Office of National Marine Sanctuaries
- U.S. Department of State
- U.S. Department of Agriculture Agricultural Research Service
- U.S. Forest Service
- U.S. Fish and Wildlife Service
- U.S. Geological Survey

ACADEMIC PARTNERS:

- University of Michigan
- University of South Carolina
- University of Vermont
- Paul Smith's College
- State University of New York's College of Environment and Forestry
- Western Kentucky University
- University of Tennessee
- Colorado State University
- University of California
- University of Virginia



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WAYS TO SUPPORT USBN

Support Conservation and Communities with a Gift

Make a direct contribution to improve human connection to nature, enhance biodiversity, boost climate resilience, and promote sustainable socio-economic development. Options to donate include:

- **ONLINE** (*Direct your gift to US Biosphere Network in the drop-down menu)
- By Check
- By Electronic Transfer

Establish a Corporate Partnership

Collaborate with the USBN as a corporate partner. Contact USBN Chair Jon W. Allan at allanjw@umich.edu for partnership opportunities.

Give Through Your Donor-Advised Fund

Simplify your charitable giving and make a lasting impact by donating through a Donor-Advised Fund.

Grow Your Monthly Impact

Contribute monthly, enabling ongoing conservation work that preserves landscapes, wildlife, and communities.

Honor and Remember Loved Ones

Celebrate or memorialize loved ones with a meaningful gift that helps safeguard natural and cultural heritage for future generations.

Leave a Lasting Legacy

Explore planned giving options to ensure a lasting legacy that supports Earth's landscapes and communities. Contact USBN Chair Jon W. Allan at allanjw@umich.edu for guidance.

Why Your Support Matters

Our work connects local communities, tribal sovereigns, and conservation partners, enabling us to tackle pressing issues like climate change, biodiversity loss, and economic sustainability. A strong, unified network will help amplify these efforts on the national and global stage. A modest investment in USBN's capacity will have a ripple effect on landscape and seascape conservation across the U.S.

Thank you for being part of this movement and for your continued commitment to the U.S. Biosphere Regions and the vision of a healthier, more sustainable future. Together, we can make 2025 the year we take USBN to new heights!



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