

## Spring 2020

Welcome to U.S. Biosphere Network News, a periodical newsletter providing summaries of notable domestic and international activities by biosphere reserves and partner organizations. Biospheres are special places recognized by the international Man and the Biosphere Program (MAB) where people work locally to improve human livelihoods and conserve their natural and cultural heritage. Innovative approaches in biosphere reserves use science, education and socioeconomic analyses to maintain healthy lands and waters and sustain our quality of life.

### U.S. and Canadian Biospheres Sign “Twinning” Agreement

New bi-national connections are being made in a recently signed Twinning Agreement between the Frontenac Arch Biosphere Network (FABN) in Ontario, Canada and Champlain-Adirondack Biosphere Network (CABN) in New York and Vermont.

The twin biospheres are united by geography and close ties. Co-located in the Great Lakes region and St. Lawrence River Watershed on the geological formation known as the Frontenac Axis, FABN and CABN share a strong sense of place with numerous ecological, cultural, social and economic ties.

The partnership has evolved over a period of six years, beginning at the 2013 EuroMAB Conference at Brockville, Ontario, followed by meetings in 2015 and 2017 at the Adirondack Ecological Center (AEC) in Newcomb, NY, culminating in the agreement signed in Burlington, Vermont on October 11, 2019.

Early projects informed the agreement’s development. Queens University and State University New York College of Environmental Science and Forestry came together to sponsor a bi-national, mobile seminar to educate undergraduate and graduate students on the respective biospheres’ natural, cultural and economic features.

The Wild Center, an outdoor environmental education center located within the CABN in Tupper Lake, NY, recently hosted Canadian students from FABN at its Youth Climate Program. These students came away eager to launch a similar youth program in their own biosphere.

As a result, FABN will host its first Youth Climate Summit in April 2020 with support from The Wild Center, and plans to replicate the model in biospheres across the Canadian Biosphere Network.

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Thousand Islands International Bridge between New York and Ontario. St. Lawrence River, U.S.—Canada border.

### Biosphere 2020 Workshop Coming to Colorado in October

The U.S. Biosphere Network will hold **Biosphere 2020**, a national workshop, at Colorado State University (CSU) in Fort Collins in late October 2020. Final plans will be confirmed when guidance on the Coronavirus disease (COVID-19) and large gatherings can ensure the health of participants. The workshop is designed to bring the 28 biospheres in the U.S. together for training, learning exchanges with other biospheres, and development of a community of practice. The October workshop will be the first time that biosphere-affiliated organizations have met since 2016, including protected area managers, nongovernmental organizations, economic sector and universities. Current workshop supporting organizations include the Salazar Center for North American Conservation, The Nature Conservancy, National Park Service and CSU.

For more information about the workshop contact Desirée Fiske at [desiree.fiske@colostate.edu](mailto:desiree.fiske@colostate.edu), or Cliff McCreedy at [cliff\\_mccreedy@nps.gov](mailto:cliff_mccreedy@nps.gov).

## New Organization Takes Root at Big Thicket

Big Thicket Biosphere Reserve (BTBR) has formed a new private nonprofit organization to coordinate programs and activities around conserving the natural heritage and productivity of the Big Thicket.

For nearly two centuries, the resources of the Big Thicket in Southeast Texas have driven the economy with energy and timber production, fisheries, agriculture, and recreation. However, for most of this period, an emphasis on maximizing commercial yields surpassed concerns for sound resource management, putting many of the Thicket's diverse ecosystems under pressure.

First recognized in 1981 by the international Man and the Biosphere Program (MAB) of the United Nations Educational Scientific and Cultural Organization (UNESCO), the BTBR offered a pathway to sustainability.

The MAB Program subsequently accepted the Periodic Review update of the BTBR's status and goals in 2017. Covering a 19-county area associated with piney woods and bayous in Southeast Texas, its mission is to develop community-based partnerships to promote sustainable economies, protect natural and cultural resources, and create a legacy of environmental stewardship in Southeast Texas.

Like all U.S. biospheres, the new BTBR organization is dedicated to providing an open and collaborative forum for people to work together and thrive in harmony with the environment. The BTBR will engage residents and stakeholders drawing from commercial and industrial entities, federal agencies, local and municipal governments, independent school districts, and others as members of an advisory council.



Bayou in Big Thicket. Credit: Ellen Buchanan

Activities of the BTBR organization will focus on community-based conservation, although conservation is only part of the equation. Reconnecting people to the value of the biosphere is key to maintaining the services that nature provides. An educational outreach program will connect with communities in the seven-county region bordering the Big Thicket National Preserve, and a marketing strategy will brand and communicate the biosphere reserve's mission and objectives to the broader public.

The BTBR's initial focus will be on volunteer projects to: 1) establish regional trash collection of discarded materials along the roads, streams, and bayous of the thicket, 2) replant longleaf pine in a concerted effort to restore habitat in areas inside and adjacent to the thicket, and, 3) repair trails within the Big Thicket National Preserve for recreational enjoyment. Building financial support for scientific research also will be a high priority.

Learn more at <https://btbiospherereserve.org>

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## Cooperation and Creativity at the Heart of the Pinelands

New Jersey is home to one of the most successful models of regional, conservation-based planning in the world: the Pinelands National Reserve. Located in southern New Jersey, the Reserve was established through the passage of federal and state legislation in the late 1970s.

The 1.1-million-acre region is managed through a collaborative effort among state, federal and local government entities. The partnership to protect the Pinelands and its world-renowned ecosystem mirrors the goals and objectives of the international Man and the Biosphere Program (MAB), which is why the MAB Program recognized the Pinelands as an International Biosphere Reserve in 1983, and subsequently accepted the Periodic Review update of the Pineland's status and goals in 2017.

The Pinelands Biosphere Reserve occupies 22% of New Jersey's land area, and it encompasses unique and often rare ecosystems as well as businesses, agriculture and people. Nearly 500,000 people live in the Pinelands, and the region provides refuge for 135 rare plant and animal species. The area is also rich in cultural and historic resources.

The New Jersey Pinelands Commission is the primary agency that oversees land use in the Pinelands Biosphere Reserve. The Pinelands Comprehensive Management Plan, or CMP, contains land-use and environmental regulations that are designed to balance economic needs with the mission of preserving and protecting the region's many resources.



Paramecium Pond, New Jersey Pinelands. Credit: John F. Bunnell

Education and public participation are important elements of the Commission's work. The recently completed installation of a Pinelands Exhibit at its headquarters and establishing a Pine Barrens Byway are great examples. All Commission Board meetings are public, and the public is always encouraged to provide feedback on ways to better manage the Pinelands and its resources.

The work to maintain this special part of New Jersey has been very successful, especially given the region's location in the country's most densely populated state. Through government and public efforts, more than half of the land in the Pinelands (or 477,000 acres) has been permanently protected. In addition to the existing regulatory framework, the Commission is engaged in numerous new initiatives aimed at better protecting the Pinelands, including efforts to review and respond to the potential effects of climate change.

Through cooperation and creativity, the New Jersey Pinelands Biosphere Reserve will continue to serve as a remarkable national and international model for balancing development and conservation for the benefit of current and future generations.

Learn more at <https://www.nj.gov/pinelands/reserve>

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## Apalachicola Celebrates Big Anniversary

Florida's Apalachicola Reserve had a lot to celebrate in 2019. In addition to its 40<sup>th</sup> Anniversary as a National Estuarine Research Reserve (NERR), the Biosphere Reserve celebrated 36 years since its recognition by the international Man and the Biosphere Program in 1983.

The Apalachicola National Estuarine Research Reserve comprises the core area of the Apalachicola Biosphere Reserve, one of eleven coastal sites in the U.S. Biosphere Network ranging from Puerto Rico to Alaska and the Hawaiian Islands. Altogether the biosphere reserve encompasses 1,615,000 acres of land and 432,600 acres of water in Florida's central panhandle. One of the most productive estuarine systems in the Northern Hemisphere, Apalachicola Bay hosts more than 54 species of wildlife designated as endangered, threatened, or of special concern and has the highest species diversity of reptiles and amphibians in North America, north of Mexico.

On Apalachicola Bay, where many locals depend on tourism and the \$16 million annual fishing industry, maintaining a balanced relationship between people and nature is a key focus of the Reserve's work. "The biosphere reserves' mission aligns closely with that of the National Estuarine Research Reserve System," said Jenna Harper, manager of the Apalachicola Reserve. "Both networks recognize that people play a large role in influencing resources... Locally, we focus on understanding how our natural systems are changing and working with local communities to steward these resources for the future."

One hundred-thirty guests attended a celebration dinner on September 28, 2019 with fresh local oysters funded by the Friends of the Reserve citizen support organization.

Learn more at <https://www.apalachicolareserve.com/apalachicola-biosphere-reserve>

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## Twinning Agreement continued from page 1

The FABN and CABN Twinning Agreement supports UNESCO MAB's strategic goals to:

- Conserve biodiversity, restore and enhance ecosystem services and foster sustainable uses of natural resources;
- Contribute to building sustainable healthy and equitable societies, economies and thriving human settlements;
- Facilitate sustainability science and education for sustainable development; and,
- Support mitigation and adaptation to climate change and other aspects of global environmental change.

FABN and CABN also seek increased engagement and reconciliation with indigenous peoples, recognizing that across their shared lands they have always been living in ways that promote sustainable development, biodiversity conservation and outreach, research and education, consistent with indigenous cultural values. The Twinning Agreement seeks to incorporate indigenous people's traditional ecological knowledge into management actions.

The personal leadership of Gary Clarke, co-chair of FABN has been invaluable to the establishment of the Twinning Agreement. The visionary concept of biosphere reserves and networks offers practical opportunities to integrate and expand the capacities of local organizations, individuals and governments to cooperatively address urgent local-to-global problems based on shared knowledge and experience. By helping people find common purpose and share reliable information in weaving nature into the economic and cultural fabric of their shared landscapes, biosphere reserves will make important contributions toward achieving a more harmonious polity at the local, national, and global levels.

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## For More Information

For more information, or to submit updates and articles for our next newsletter, contact Cliff McCreedy, U.S. Biosphere Network Coordinator, at 202-513-7164, [cliff\\_mccreedy@nps.gov](mailto:cliff_mccreedy@nps.gov)