SPIRIT OF PLACE, SPIRIT OF EARTH
An Eco-Justice Training

Where We Gather

The Natural and Biocultural Heritage of the Hudson Valley

The Hudson River begins at Lake Tear of the Clouds, a small lake in the Adirondacks Mountains. It flows south for 315 miles, fed by approximately 65 major tributaries and hundreds of tributary streams, and ends in the Atlantic Ocean at New York Harbor. One of the original names for the river, given by the Mohican Peoples, was *Mahicantuck*[*]—often translated as "river that flows two ways" because the Hudson is a tidal estuary, with salty ocean water on high tides reaching as far north as Poughkeepsie. The river has been a powerful life-sustaining force for both people and hundreds of other species since time immemorial.[1]

The Hudson River watershed includes almost 25 percent of New York State's land area, and the "Hudson Valley" is generally considered to stretch from Albany south to Yonkers, encompassing 10 counties. The largest tributary is the Mohawk River, which flows in at Cohoes, near Albany. Other tributaries include Esopus Creek, Catskill Creek, Opalescent River, Rondout Creek, and Wallkill River. The region's habitats are home to more than 2,000 different species of plants and animals, as well as nearly 90 percent of all the biodiversity in New York.[2] The Dutch were the primary initial colonizers of this region, and the river's name comes from the Englishman Henry Hudson, who sailed into this region in 1609 on the De Halve Maen (The Half Moon) under the sponsorship of the Dutch East India Company.[3]

This river valley is the original homeland of many Indigenous Peoples, some of whom moved around and overlapped with each other. They include the Mohican, Lenape, Wappinger, Schaghticoke, and Haudenosaunee Confederacy (Onondaga, Mohawk, Oneida, Cayuga, and Seneca) peoples.[4] Umbrella terms that have been used to describe Indigenous peoples and cultures of this regions include Algonquin and Iroquois, but most Indigenous peoples have returned to using names that come from their own

[*] The Dutch and other European colonists transliterated the river's Indigenous name into their own languages, often inconsistently. *Mahicannitukw* and *Mohicannituck* are among the spellings they used for the original Algonquin word. Contemporary Indigenous communities also use a variety of spellings. See "Place Names Map," Public History Project (n.d.), accessed June 7, 2026, https://www.publichistoryproject.org/research/place-names-map/.

languages, even if they or others sometimes also use other terms. Of course, it is wise to check with the people themselves to understand protocols and meanings.

The original biocultural heritage of this region is kept by those Indigenous communities in their own ways, including language, music, ceremonies, stories, and traditional ecological knowledge. Other cultural forms also have grown out of the relationship between people and land over time. One notable example is the nineteenth-century Hudson River School of landscape painters (including Thomas Cole, Asher Brown Durand, and Frederick Church), whose depictions both reflected and inspired aspects of the mainstream environmental protection movement. This was dramatically illustrated in the landmark Storm King case in 1966, when Yale art historian Vincent Scully testified in favor of the Scenic Hudson Preservation Conference against Con Ed's plan to build a power plant in the iconic landscape, saying it "strongly reminds me of some of the natural formations which marked the sacred sites in Greece and signaled the presence of the Gods."[5]

Storm King: Scenic Hudson Preservation Council v. Federal Power Commission (1965)

In 1962, a determined group of local citizens met in Westchester County to organize opposition to Consolidated Edison's effort "to build what would be the world's largest pumped-storage hydroelectric plant" on Storm King Mountain.[6]

Con Ed planned to gouge a gigantic wedge out of the 1340-foot peak, which dominates the west bank of the Hudson south of Cornwall-on-Hudson, as well as install an eight-billion-gallon reservoir at its summit. The opponents, dubbing themselves the "Scenic Hudson Preservation Conference," began a seemingly quixotic public relations and legal campaign against the plan.

Despite early losses in front of the Federal Power Commission and in the courts, Scenic Hudson, which quickly attracted new members and support from the Hudson Valley and beyond, won a historic legal victory in 1965 when the Second Circuit U.S. Court of Appeals ruled that the group could sue to stop the plant. "It was the first time citizens were granted the right to sue … to protect the environment, in a case based on aesthetic and environmental factors."[7]

The creativity continues to flow from the mix of peoples that have related to the land here. This is a rich heritage itself, from the Woodstock Music and Art Fair of 1969 (actually held further west in what is now Bethel Woods), to the Fiddle and Dance Camps at the Ashokan Field Campus—which later became the Ashokan Center—where "Ashokan Farewell" was first played by Jay Unger (the original composer) and his wife, Molly Mason, as a goodnight waltz.[8] One very current example is the Fish Migration Festival.[9]

In calling for the Festival, Hudson Riverkeeper Tracy Brown described this current fish migration—when Atlantic sturgeon, American eel, striped bass, American shad, and river herring all journey upriver (as they have for centuries)—as an event akin to the great migration on the Serengeti, only happening just beneath the surface of the water.

The Global Climate Crisis and Ecological Impacts on the Hudson Valley

This valley, like regions around the world, is already experiencing the higher average temperatures and extreme weather events that are the hallmarks of climate change. Careful observation, including by the scientists that make up the Intergovernmental Panel on Climate

Change, has shown that the main cause of the current change in climate is greenhouse gas emissions from the burning of fossil fuels.[10]

Some of the effects in this region are the result of effects in other parts of our interconnected global environment. Sea level on the Hudson River has already risen about a foot in the past century due to global ice melt (which is particularly dramatic in Greenland) as well as from thermal expansion from rising water temperatures.[11] It is currently predicted to rise six feet or more by the end of this century. This water rise will be accompanied by increased salinity travelling further north in the river, which could dramatically affect river species as well as the many communities that rely on the river for tap water—including corroding pipes and causing breakdown of water treatment systems.[12]

Earth scientists also predict that New York State will experience increased heat, precipitation and flooding in winter and spring, as well as increased drought—and accompanying fire danger—in summer and fall.[13] They predict that precipitation will occur largely through "cloudburst" storms, which are sudden localized rainfall events that can cause flash flooding within minutes. These storms bring a host of challenges beyond flash flooding, including possible dam failures, soil erosion, and challenges to agriculture.[14] Although many climate change impacts are dramatic and obvious, many more are subtle, with unknown long-term consequences. The degree to which this trajectory continues depends on whether or not we change our ways.

Pollution of Water and Air

Many Hudson Valley communities are not only dealing with the effects of climate change, they also are engaged in environmental justice struggles against the toxic pollution of water, soil, and air.

One major example of this is the scourge of per- and polyfluoroalkyl substances—known as PFAS—which have been found in drinking water of many Hudson Valley communities, in sewage sludge that farmers have been encouraged to use as fertilizer, and in the Hudson River itself.[15] PFAS are a category of "forever chemicals," a large group of chemicals that do not easily break down and therefore remain in the ecosystem for decades, bioaccumulating in the tissue of plants, humans, and other animals. Thousands of different PFAS are commonly used in consumer, commercial, and industrial products, and these chemicals end up in the water, air, soil, plants, and in our bloodstreams.[16] Health effects from PFAS include reproductive, developmental, immune system, and hormonal effects as well as increased risk of certain cancers.[17] Nearly 200 of New York's drinking water systems, providing tap water for approximately 1.3 million people, have tested PFAS levels ranging from 4 ppt to 10 ppt (the EPA sets the federal limit at 4 ppt in drinking water).[18]

In Newburgh, New York, residents have advocated for access to clean water for years. Between the early 1990s and 2016, residents were drinking PFAS-contaminated tap water, which had been running off from Stewart Air National Guard Base into Washington Lake, the city's primary drinking water reservoir. A 2016-2017 study by the New York Department of Health found PFAS levels in the blood of Newburg's residents to be nearly four times the national average.[19]

The Hudson River also has been subjected to a high level of toxic polychlorinated biphenyls (PCB) pollution, another category of "forever chemicals" that threaten all life within and along the river. PCBs are known carcinogens and linked to reproductive, immune system, neurological, and endocrine effects.[20] Over the course of 30 years beginning in 1947, General Electric dumped approximately 1.3 million pounds of PCBs into the river from plants in Fort Edward and Hudson Falls.[21] Even after the dumping stopped, runoff from the Hudson Falls plant continued to pollute the Hudson. In 1984, a 200-mile stretch of the river was declared a Superfund site, one of the nation's largest. Though GE was ordered to remove 2.7 million cubic yards of PCB-contaminated sediment from the river, contamination levels still remain dangerously high.[22] Friends of a Clean Hudson coalition, Riverkeeper, and other groups continue to advocate for remediation and restoration of the river.

Air quality is another concern. New York state has 10 incinerators for burning trash, more than any other state.[23] Dutchess County burns about 45 percent of its trash at a Poughkeepsie incinerator along the Hudson. Incinerators produce both a significant amount of greenhouse gases as well as other toxins, including lead, mercury, cadmium, hydrochloric acid, and nitrogen oxides. They also produce toxic ash. The Peekskill and Poughkeepsie incinerators send to landfills 30 pounds of toxic ash for every 100 pounds of trash burned.

Communities have waged powerful climate and environmental justice campaigns throughout the region. For example, in 2024, after years of organizing, Newburgh environmental justice advocates celebrated the announcement that Danskammer Energy was withdrawing its plans to build a new methane gas facility in Newburg, New York.[24] Fighting air and water pollution often includes this kind of defensive work, but there is also a proactive and positive side, as communities come together to envision ways to live in harmony with nature that also result in flourishing local economies. Currently this is coming about in response to the revival of fossil fuel projects that were defeated in the past, such as the Constitution Pipeline (fracked gas), as well in the groundswell of resistance against data centers.[25]

Our Animal and Plant Relatives, a.k.a. Biodiversity

The Hudson Valley is home to more than 2,000 different species. Many are under threat from changing weather patterns (which affect their ability to find food, hatch eggs, etc.) as well as from pollution and habitat loss from human development, including dams.

This reflects a global trend. In 2020 scientists reported that in each year during the last century we lost the same number of species typically lost in previous 100-year periods, with extinction rates continuing to accelerate.[26] On a national level, extinction rates also are rising. For example, a 2025 Cornell

University study found that approximately one third of all American bird species are "of high or moderate concern due to low populations, declining trends, or other threats,"[27] and that "birds are declining most severely where they are most abundant—the very places where they should be thriving."[28] A World Wildlife Fund study showed that wild animal populations have declined by 69 percent since 1970.[29] Studies predict that if our current patterns remain the same, more than a third of plant and animal species could become extinct in the next 30 years.[30]

The Hudson bioregion's rich biodiversity includes river species that rely on a particular mix of fresh and salt water, as well as a particular water temperature range. Endangered Atlantic sturgeon, for example, spend most of their lives in the Atlantic but travel up the Hudson to spawn. They are known to live up to 60 years, can grow up to 14 feet long, and have been around as a species for 120 million years.[31] American eels, a species of "special concern," spend most of their lives in rivers, including the Hudson, and travel 1,000 miles to the Sargasso Sea to spawn. Elvers (young eels) then make a year-long journey back to the Hudson.[32]

Rising water temperatures in rivers, lakes, and coastal waters, are requiring species to find new habitats, and in many cases reducing their populations.[33] Many of the more than 200 species who travel the migratory pathway from the Atlantic each spring are in serious long-term decline and at risk of collapse due to this temperature rise, as well as from overfishing, habitat loss, and pollution.[34] Rising water temperatures can also reduce oxygen levels in water and contribute to harmful algae blooms—a particular threat to aquatic species.[35]

Animals that share this place range from land animals like deer, black bear, foxes and bobcats to pollinators like butterflies and honeybees.[36] Beavers are a keystone species, creating and maintaining wetland habitat that benefit many other species of life.[37] This bioregion is also one of the top four river drainages globally for turtle species richness and is the home of more species of dragonflies and damselflies than nearly anywhere else in the U.S.[38]

Let's not forget the plants and trees! Rising temperatures are changing the timing of seasonal cycles, such as when they flower and leaf. Winters are becoming milder, allowing new pests and pathogens to arrive and survive the winter, leading to predictions that they will become more damaging for both forests and agriculture, causing potential ripple effects on food supply and air quality.[39] One notable invasive species—the Emerald Ash Borer—has decimated the ash tree population in the region, creating an additional challenge for those focused on caring for forests, especially at a time when many dead trees and erratic weather make them vulnerable to fires.[40] Although this is extremely frustrating, rising awareness of ecological interrelationships is itself a gift, inviting people to make relationships with the environments around their homes.

Hudson Valley success stories show how human society can correct mistakes. The Bald Eagle, adopted as the emblem of the United States in 1782, was driven to near extinction in the mid-twentieth century. A variety of factors made them vulnerable, but the main threat was the pesticide DDT, which contaminated eagles' food sources and weakened eagles' eggshells so that their young were not viable. After its development in the 1940s, DDT was widely used until voices of moral concern about its

destructive impacts—notably Rachel Carson in *Silent Spring* (1962)[41] —resulted in a 1972 ban. In 1976, the New York State Department of Environmental Conversation made a concerted effort to revive the eagle population, which was only possible because the landscape was then free from DDT. In 2007, after 34 years, the Bald Eagle was finally removed from the Endangered Species list and is thriving in the Hudson Valley today.[42]

Biodiversity reflects planetary health, and the decline of any species diminishes the wider ecosystem. The effects of biodiversity loss are wide reaching and unpredictable, for all species and for humans, threatening food security and access to clean drinking water, and worsening the spread of infectious diseases, among others. On the other hand, as Indigenous cultures have long demonstrated, honoring and taking care of our relatives in the animal and plant world can increase our well-being and sense of belonging within the places we live and share with them.

Food and Farming

One of the ways in which humans interact most intimately with other species of life is through gardening, agriculture, and foodways.

The Hudson Valley, and New York State in general, relies heavily on agriculture, with approximately 30,6500 farms in New York State, comprising 21.6 percent of the state's area.[43] In New York State, climate change has been described as "a threat multiplier for agriculture," including crop loss from flooding, heavy rainfall, and erosion; increased pest and disease pressure; heat stress on both crops and animals; "early spring," which causes fruit trees to bloom early at risk of subsequent frost; increased potential for drought in summer and fall; and overall increased unpredictability of seasonal patterns.[44]

Farmers and farming communities already face multiple stressors, including low profit margins and food insecurity. Farmworkers face substantially more. About 50 percent of New York State farmworkers are undocumented and live with the threats of deportation and institutional violence, economic hardship, and the health effects of long days of intense physical labor.[45] Climate change is expected to exacerbate all of these conditions, with particular grave concern for farmworkers health during heat waves.

Roughly 250,000 people in the Hudson Valley already suffer from food insecurity, and climate change is predicted to add additional stress on our food supply and systems.[46] On the positive side, the movement towards regenerative agriculture and local foodways is particularly strong in this region and is an example of how land and culture can be restored together.

New York State Climate Policy

Like many other places around the country, policies and projects to address climate change in this region had a surge in the last decade but now are being severely challenged by the current federal administration.

In 2019 the New York State legislature passed the Climate Leadership and Community Protection Act (CLCPA)—one of the most ambitious climate laws in the nation, with the goals of reducing greenhouse gas emissions by 40 percent and producing 70 percent of the state's energy from renewable sources by 2030. In May of this year, however, Governor Kathy Hochul oversaw the weakening of some CLCPA's key provisions. New York lawmakers approved the delay of emissions targets by 10 years—changing them to a 60 percent reduction by 2040 as well as delaying the start of a "cap-and-invest" system designed to incentivize polluters to reduce their emissions. The changes also affect the way the state measures its emissions–eliminating the requirement to count emissions associated during the extraction process of fossil fuels that are then imported to New York.[47]

In 2024, New York State passed the Climate Change Superfund Act, modeled after the original 1980 federal Superfund law, and designed to make climate polluters pay for damages.[48] New York and Vermont were the first two states to pass Climate Change Superfund legislation and in 2025 eleven other states introduced similar legislation.[49] The New York law mandated that companies most responsible for carbon emissions between 2000 and 2024 pay $3 billion per year for 25 years to help pay for damage caused by increasing extreme weather, as well as prepare for more to come. In 2025, however, the federal government sued to block the New York and Vermont laws.[50] Business groups, other states, and fossil fuel trade associations have filed other lawsuits against New York State regarding the Superfund legislation. At the moment all of these legal challenges are still pending.[51]

These statewide setbacks come in the context of the federal administration's rapid and widespread dismantling of environmental policies and projects. This assault on our ability to come together to address the ecological realities we live in will not necessarily ultimately prevail, but it is indeed quite fierce. It may only be countered by a movement that draws from the deepest wells of wisdom and truth. In a Wall Street Journal op-ed, Lee Zeldin, the Environmental Protection Agency administrator and former New York congressman, boasted that "We are driving a stake through the heart of climate-change religion." In response, Rabbi Jennie Rosenn, founder of Dayenu, a Jewish climate change organization, wrote: "I am not at all sure what 'climate-change religion' is, but I do know that Judaism, the religion Zeldin and I share, values the protection of life. In a Midrash on Genesis, G-d warns Adam and Eve 'be mindful then that you do not spoil and destroy My world—for if you spoil it,' no one after you to repair it (Midrah Kohelet Rabbah 7:13)."[52]

Amidst the extremely bleak vision that the federal administration is pushing, regional and statewide groups of citizens continue to engage in the hard work of advocating for ecologically sound policy. For example, in 2026 New York passed a year-long moratorium on the construction of new data centers to gain time to develop environmental and social protections as well as the SUNNY Act, which allows residents to use small plug-in solar panels at their homes and apartments.

Conclusion

In one sense, we are gathering in Olivebridge, in the Hudson Valley, in New York State, in the United States of America. In another sense, we are gathering within one place on Earth in order to bring the well-being of the whole planet to mind. The survival of many species of life, including our own, depends on humans making wise collective decisions in the near future. There are different ways to do this, some of which involve civic engagement at various levels of governance, and some of which involve tending to the values, culture, and spirituality that shape our societies. In all cases, we have a lot to learn from the intelligences of the rest of the natural world, allowing our sentience to shape our conscience. Wherever you are from, and whatever your calling, we welcome you to be in community with us at "Spirit of Place, Spirit of Earth."

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