

Game changers

Events, inventions and ideas have sometimes taken Maine's forests and forest economy in an entirely new direction.

1. *The King's Broad Arrow*

Starting in 1605, the availability and high quality of white pine played an important part in the development and economy of Maine. After Captain George Weymouth of the British Royal Navy brought samples back to England, the British wanted to ensure that the best of the mast trees remained available for British ships. So in 1691, England declared the largest white pines to be the property of the King and they were marked, protected, and harvested for the government's use. Some historians believe colonists' anger over the prohibition on their use of these trees was as important as tea taxation in sparking the American Revolution. To learn more, visit: [Maine History Online](#).



King George's broad arrow, a vertical line topped with an upside-down "V" (see top of photo) was slashed on the surface of the straightest and tallest white pines.

Photo courtesy of King's Mark Resource Conservation & Development Project, Inc.

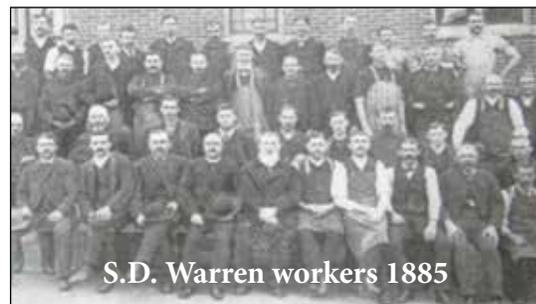


2. *Lumber capital of the world*

The first sawmill in Bangor was built in 1772. It marked the beginning of a century of dominance by Bangor in the world lumber industry. In the mid 1830s, Bangor was home to more than 300 sawmills, earning the city the undisputed title "Lumber Capital of the World." Bangor's prosperity in the lumber industry began to fade in the late 1800s, as Americans began to settle farther west. By the end of the century the city began to lose its mills. Today, Bangor has no mills.

3. *Using wood for pulp sparks Maine paper industry*

Paper-making in Maine began in the 1730s, when a small mill was built on the Presumpscot River in Westbrook. In 1854 Samuel Dennis Warren purchased the mill for \$28,000, starting the S.D. Warren Company. At that time discarded clothes were beaten to a pulp and poured into molds to make paper, but because of a rag shortage in the 1850s, methods were invented for making paper from wood. The first wood pulp in Maine was produced in the basement of a Topsham sawmill in 1868, marking the beginning of the paper industry's rapid growth in Maine. In 1880 the S.D. Warren mill in Westbrook first blended wood fibers with rag pulp and five years later the Westbrook mill was the largest paper mill in the world.



4. End of log drives

Beginning in the 19th century, Maine's rivers were used to move vast amounts of timber from the North Woods to markets. Although impressive to see, the great log drives left huge amounts of silt, bark, and detritus that took a heavy toll on fish and other river life. The last log drive was held on the Kennebec River in 1976. Today timber is transported from the North Woods by truck.



July 1974: Spruce budworm defoliation as far as the eye can see around the West Branch of the Penobscot River/Chesuncook Lake.

5. Spruce budworm

After fire, the greatest enemy of Maine's forests is the spruce budworm. At least six separate and serious outbreaks have been recorded – 1770, 1806, 1878, 1910, 1949 and one from 1970-85 killed 21 percent of all fir trees in the state by 1982. From 1976-81, 7 million cords of spruce and fir were directly lost to the budworm and another 8 million cords were so damaged they simply blew down. "In all my career since 1929, I have never by far witnessed the grave and extensive holocaust posed to Maine forests by the budworm for 1975," said former state entomologist Robley Nash.

6. Forest Practices Act and clearcutting referendums

A direct line can be drawn between the spruce budworm outbreak of 1970-85 and efforts to change Maine's timber harvesting laws. The scramble to salvage wood before it was killed or damaged set off alarms with environmental groups. The Legislature passed the Forest Practices Act in 1989 to regulate harvesting, but the limits didn't allay all the concerns and three referendums on clearcutting were fiercely debated in 1996, 1997 and 2000. All were defeated.



7. Energy crisis sparks biomass boom

The energy crisis started in October 1973, when OPEC and other oil proclaimed an oil embargo in response to U.S. decision to supply weapons and supplies to Israel during the Yom Kippur war. Oil prices immediately jumped from \$3 per barrel to \$12, resulting in massive gas shortages and panic. But it also resulted in a surge in interest in biomass energy, including construction of biomass plants in Maine. In 2017, 2.4 million tons of biomass was harvested. Biomass energy facilities consumed 2.3 million tons in 2017, up 11% from 2016. In 2018, about 22% of Maine's electricity came from biomass, according to the U.S. Energy Information Administration.

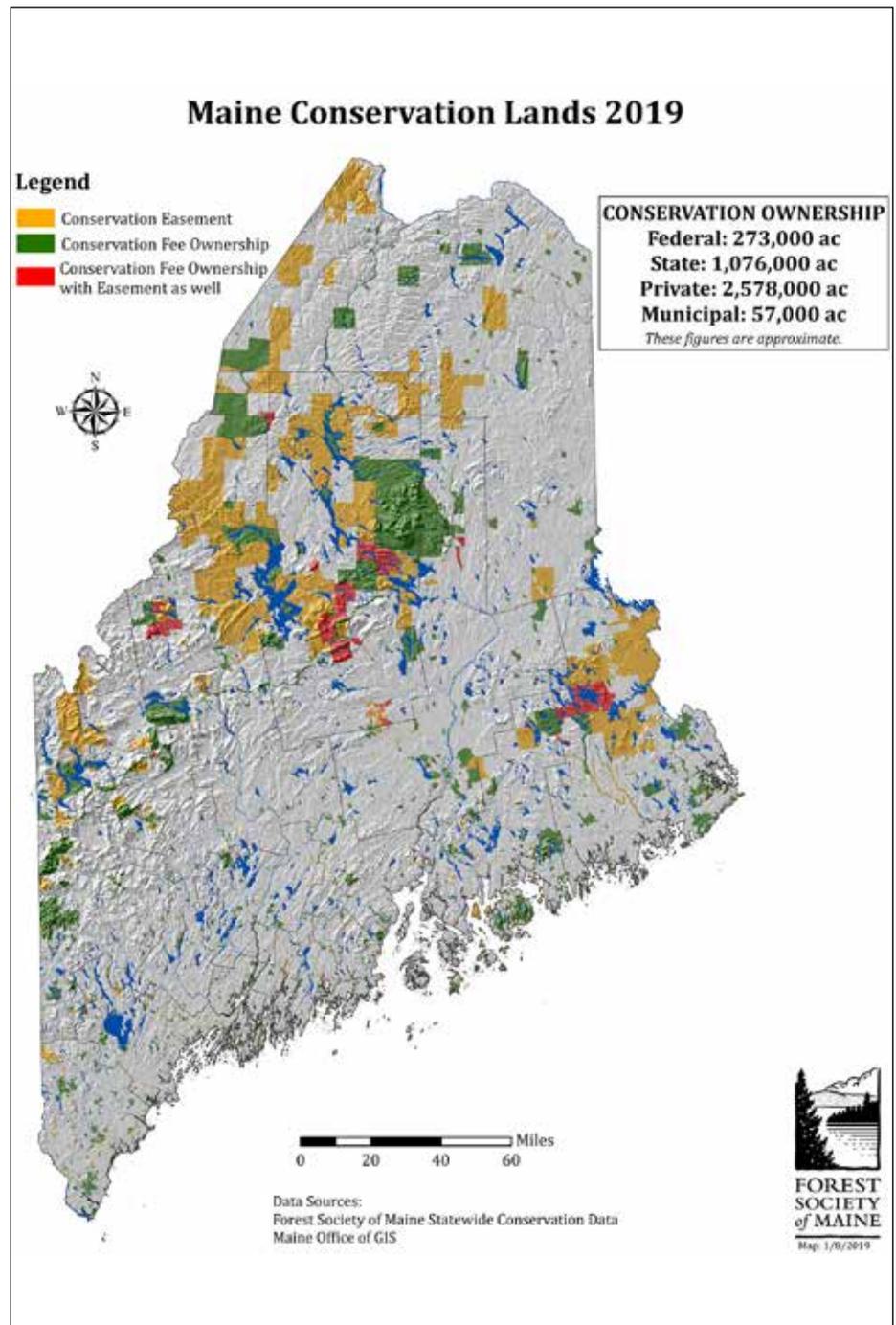


8. Maine leads in forest certification

The concept of identifying products from well-managed forests emerged after at the U.N. Conference on Environment and Development in Rio de Janeiro in 1992. Today, independent auditors, such as the Sustainable Forestry Initiative (SFI), the Forest Stewardship Council (FSC), and the American Tree Farm System (ATFS), certify that sustainable forest practices are being used to manage forests in a particular location. Maine now has 8.3 million certified acres – nearly half of the state’s forestland – making our state the national leader in forest certification.

9. Conservation easements

In the 1980s, concern about preserving Maine’s special places grew as real estate speculation increased and paper companies, which had owned much of the north woods, began to change hands. Conservation easements allow landowners to own and use their property, but permanently remove development rights. Now nearly 4 million acres in the state are covered by conservation easements.



10. Working forests provide habitat for Maine’s wildlife

Maine’s wildlife species, including deer, moose, bear, Canada lynx, marten and hundreds of species of birds, depend upon the working forest, which creates a mosaic of habitats from early succession to mature forests. Maine’s moose population is the largest in any of the lower 48 states. The young softwood forests of northern Maine support the largest resident breeding population of Canada lynx in the lower 48 states. No longer considered rare, our bald eagle populations continue to expand. Maine has about 97 percent of all of the wild brook trout lakes and ponds in the eastern U.S. Healthy forests are essential to wildlife populations.

