

Maine's Public Estate and Conservation Lands:

Brief History and Assessment

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Abstract

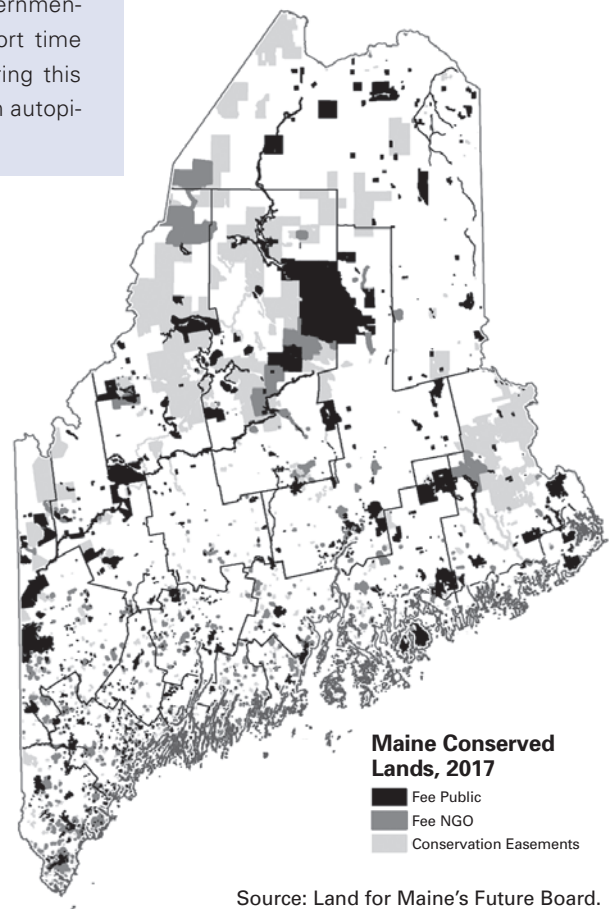
In contrast to other northeastern states, the first conservation movement at the turn of the twentieth century passed Maine by. New Deal conservation programs likewise had little impact here, though several seeds were sown. In a state where public access to open rural land and North Woods lakes and rivers was extensively available, there was no perceived need for a public land system. In southern Maine by the 1990s, sprawl and No Trespassing signs became more visible. In the North Woods, large sales of former paper company land shook confidence that public access to land would continue. In a historic burst of activity, state and federal programs, aided by several nongovernmental organizations, made land and easement acquisitions that in a short time brought 21 percent of Maine's land into its conservation estate. During this period of activity, a number of baffling policy issues were left largely on autopilot; this article closes with a brief and selective list of them.

Few people know that 21 percent of Maine's land area is now in conservation status and that most of this transfer occurred in the last three decades. Perhaps this information is not widely known because it is not easy to learn the facts about Maine's public and conservation lands.¹ To make this information easier to find, in this article I will review the history of Maine's public lands, the forces that generated the recent upsurge in conserved land, and some issues we must consider for the future, such as management of public lands, the Land for Maine's Future Board, and the new (2016) Katahdin Woods and Waters National Monument (KWW).

Maine's public estate, as presented here, includes local, state, and federal landownership and easements.² *Conservation lands* include nongovernmental organization (NGO) ownership and easements (Figure 1). Because of issues with the data, I have not included coastal beaches and inland islands (other than Acadia National Park) and Native American lands. I also did not consider state-owned river and lakebeds and coastal

submerged lands, but I did include estimated municipal lands, as shown in the Maine geographic information system (GIS). As there is no current census available, it is unlikely that I have completely accounted for lands held by local NGOs. Sources

FIGURE 1: **Maine Conserved Lands, 2017**



Source: Land for Maine's Future Board.

for the data are given in a detailed Appendix available on the *MPR* Digital Commons site (<https://digitalcommons.library.umaine.edu/mpr/vol27/iss2>), which discusses sources and limitations of the data and includes a 2017 conservation lands map. At several points in this essay, I rely on personal knowledge from service in state government and as a consultant.

BRIEF HISTORY OF MAINE'S PUBLIC ESTATE

We can think of the history of Maine's public land as fitting into three broad eras: an *era of disposal*, an *era of passivity*, and an *era of acquisition*. Maine is unusual in that the disposal of its lands occurred under the sovereignty of four regimes: two successive monarchies, then the Commonwealth of Massachusetts, and finally the state of Maine. During the eras of disposal and acquisition, the map of Maine's public and conservation estate was dramatically redrawn.

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Era of Disposal: 1600s to 1878

Until the claims made by European monarchs, the land that is now Maine was held in usufruct tenures by a number of Native American tribes. The oldest private land titles in Maine were issued by the King of France to Sieur de Cadillac in 1603. The oldest deed given by Native Americans was issued at Pemaquid in 1625 to John Brown. During the Colonial period, the British Crown and the Council of New England made numerous grants, a total of some 4 million acres by 1783. Maps of Maine from this time were poor to nonexistent. Grants were often given with no clear boundaries, and many were later revoked or lost (Judd, Churchill, and Eastman 1995; Wilkins 1963). This history left a long legacy of litigation over titles and rights, culminating in the Indian Land Claims litigation and settlement of the early 1980s, which remains incomplete in important respects.³

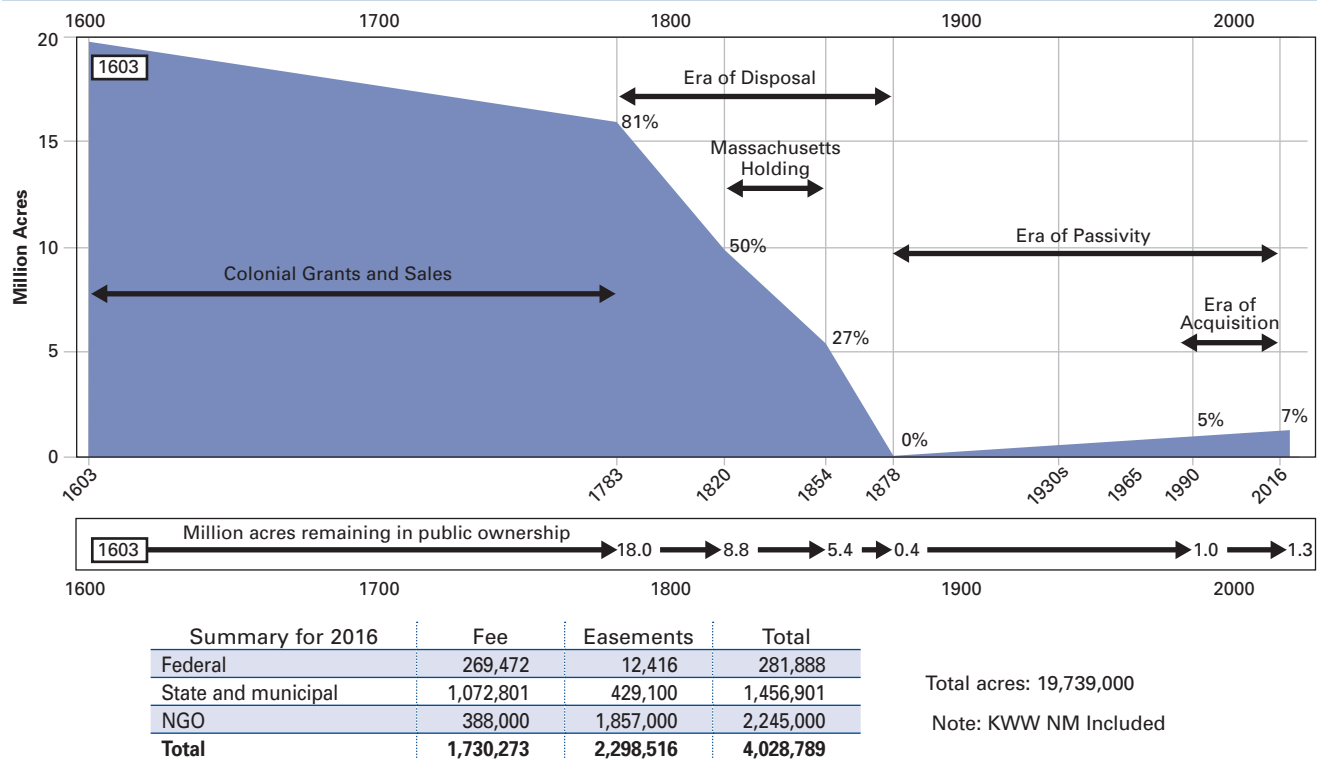
At the end of the Revolutionary War in 1783, there was no federal land in Maine, in contrast to the Trans-Appalachian territories. Instead, the government of Massachusetts succeeded to all remaining ungranted lands, which then accounted for some 81 percent of Maine's land area. At statehood in 1820, ungranted lands amounted to 60 percent of the state's present land area.⁴ Massachusetts retained ownership of a considerable area of the state's wildland. Maine purchased the Commonwealth's remaining lands in 1854.⁵ State ownership was then only 27 percent of Maine's total land area (Judd, Churchill, and Eastman 1995; Wilkins 1963) (Figure 2).

For most of the nineteenth century, the prevailing view was that Maine had too much public land. Before the Civil War, many people cherished the hope that much of this land would become thriving farming communities. Moses Greenleaf (1829) predicted that lumbering would cease in Maine as the forest was removed. These hopes were dashed by the Erie Canal and the migration to the vast productive lands of the Corn Belt and the prairies. I've often observed that Maine's most successful public lands policy was its decision to get rid of it all. Maine made its last land sale in 1875, after which it held claim to remaining public reserved lands (often termed *public lots*) of some 400,000 acres, a few odd parcels, and islands on the coast and in Great Ponds. By the end of the 1880s, Maine owned virtually no public land. On its 400,000 acres of public lots, the state had sold the timber and grass rights, leaving the land to lie fallow for another century.⁶

Era of Passivity: Two Conservation Movements Bypass Maine

During the country's first conservation movement, around the turn of the twentieth century, nearby northeastern states were establishing large public land systems, often by purchase. This trend bypassed Maine completely. The state's longstanding traditions of open access to private lands meant that the outdoor sporting community did not worry about access to favorite hunting grounds, canoe routes, and fishing holes (Acheson and Acheson 2009). Further, over much of the period from 1900 to 1960, Maine's economy was weak, public revenues were scant, and one-party rule in Augusta was committed to minimizing government expenditures.⁷ The absence of effective county-level government in Maine meant that a key advocate for, and manager of, local recreation facilities and parks did not exist.

FIGURE 2: History of Public Ownership in Maine to 2016



Federal conservation efforts were limited in Maine up until the 1930s, with the notable exception of Acadia National Park, which was initiated by private land donations. In western Maine, the federal government began acquiring land for the White Mountain National Forest in 1914.⁸ Maine's first national wildlife refuge (Moosehorn) was established in 1937. In the 1930s, New Deal programs fostered an awareness of the potential importance of tourism for the economy and of conservation as a broad social policy. In 1935, the Maine Legislature created a parks commission, and the first park was dedicated in 1938. This park, Aroostook State Park, also had its origin in a donation, in this instance by the city of Presque Isle. Many later parks also originated in private donations. Maine acquired its first state wildlife management area in 1937, assisted by the federal Pittman Robertson Act of 1937, which provided funds for land acquisition and wildlife research. But the Works Progress Administration's (1937) guide for Maine, while emphasizing the importance of tourism and outdoor activities to Maine, had nothing to report

on game management areas or state parks beyond the first donation for Baxter State Park (about 6,000 acres) (Hakola 1981).

From the late 1920s through the 1940s, many other eastern states acquired the nuclei of state forest and park systems by tax default. But because tax defaults were limited in Maine, this opportunity also bypassed the state.⁹ Due to other priorities during the Depression and World War II, by the mid-1960s, Maine's public estate had increased only marginally, having added a few parks, accretion to federal units, and wildlife management areas.¹⁰

In the second conservation movement, roughly dating from the Kennedy and Johnson administrations, events rapidly gained momentum and engaged more actors. Yet in Maine, apart from completion of the Baxter State Park donations, occasional tiny purchases by federal agencies, and the Allagash Wilderness Waterway, public land acquisition moved slowly. The earliest acquisitions responded to concerns over specific places, such as the Allagash, not to a broad interest in conservation.

A sense of threat to natural values and to public access had yet to become a political force in Maine.

Interest in conservation increased in the early 1970s during the administration of Maine Governor Kenneth Curtis, when stories by journalist Bob Cummings unearthed the issue of the ownership and management of the public lots (Schepps 1974). The federal 1972 Clean Water Act spurred, finally, action on water quality. Growing interest in the outdoors began to register in public discussion and policies. During this time, Governor Curtis reorganized state government, creating a Department of Conservation, and the department's early leaders became part of the force for conservation.

The era of acquisition, long delayed for Maine compared to other states, began with a vengeance in 1998....

A citizen-initiated referendum for the Bigelow Preserve (1976) typified the place-based nature of conservation interest.¹¹ Fragmented acquisition programs, serving particular constituencies, diluted efforts to conserve other land. A period of advocacy, legal action, and negotiation began in which the state's scattered public lots were not only recovered for public uses, but also consolidated into major tracts protecting scenic jewels of the state such as the Bigelow Mountain Range, Squapan Mountain (since renamed Scopan Mountain), Duck Lake, and the Mahoosuc Range. These lands were committed to the care of a new agency, the Bureau of Public Lands, which operated on its own resource revenues with no support from the general fund. During the administration of Governor Angus King, the Parks Bureau was merged with Bureau of Public Lands; the state parks continue to receive general fund support.¹²

Even during this second conservation movement, however, Maine did not expand its public estate significantly. By 1999, the state's public estate was only slightly larger than it had been in the 1930s. Much of the increase was due to discovering and consolidating the public lots, which had previously been of little use for conservation or public recreation. Maine's public estate became far more visible, though, because the public

lands program had brought the old scattered public lots into manageable units through its trading program.

At the beginning of the 1980s, Maine's public estate consisted largely of the public lots, donated lands, around two dozen state parks, and two or three dozen wildlife management areas. By 1988, well into the second conservation movement, nearly half of Maine's public fee lands still consisted of the long-ignored but recently rediscovered public lots.

Development booms in southern Maine in the 1980s accented dwindling public access to rural land. The observation was, "When the For Sale signs come down, the No Trespassing signs go up." Also during this decade, large land sales in northern Maine began to prompt concern. In 1982, financier James Goldsmith acquired Diamond International Corporation, a major northern Maine landowner that also held lands in scenic areas of northern New Hampshire and New York. In 1988, Diamond International sold the Maine lands, and those new owners further broke up and sold the properties, often to *liquidators*, as the operators with the most exploitive methods were called (Harper 1990; Irland, Hagan, and Lutz 2011; NFLC 1994). Major national conservation groups made Maine a priority in the fight to protect large swaths of northern wildlands (Irland 2016). Public concern and political momentum combined to build more conscious, planned expansion of the public estates in several northeastern states during this time.

Era of Acquisition

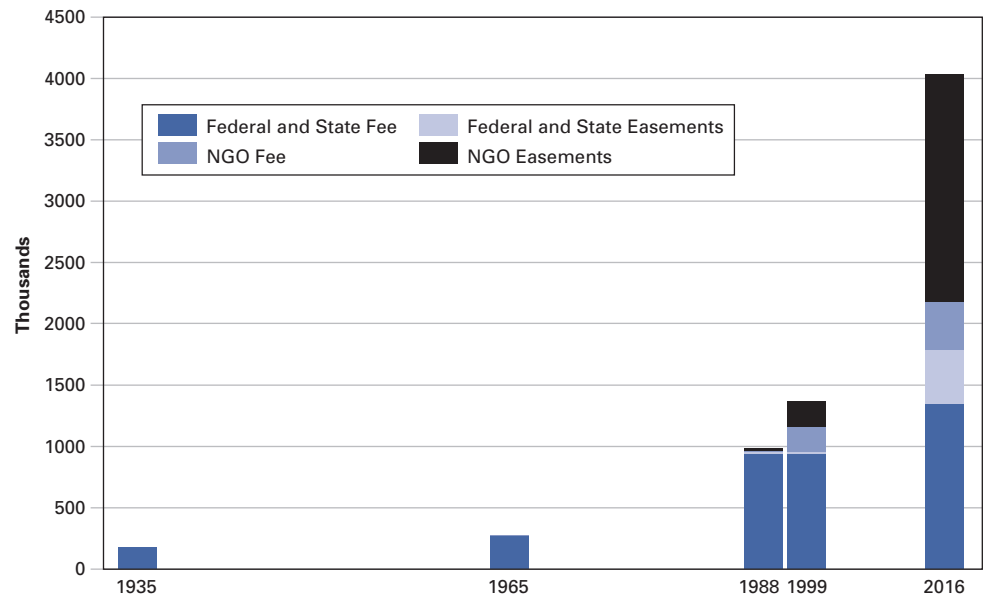
The era of acquisition, long delayed for Maine compared to other states, began with a vengeance in 1998 with The Nature Conservancy's purchase of 185,000 acres of former International Paper lands along the upper St. John River, followed by the Pingree conservation easement by New England Forestry Foundation (announced in 1999; closed in 2001). The Pingree transaction alone boosted conservation land totals to a new level. In fact, this one easement covered more area than the amount that had been added to the public estate since the 1930s (Figure 3). While there was strong public support of, and involvement in, these projects, the primary funding and initiative for both transactions were from the private sector.

The era of acquisition, with its significant advances in conservation, coincided with a time of extraordinary change in Maine's wood-using industries and timberland ownership. By the 1990s, a major shift in corporate timberland ownership accompanied a change not only

in ownership but also in means of sharing land-ownership in Maine's forests. This period saw the virtual complete liquidation of Maine timberland holdings by US-based, publicly held paper and forest products firms (Hackley 2018; Irland, Hagan, and Lutz 2011).

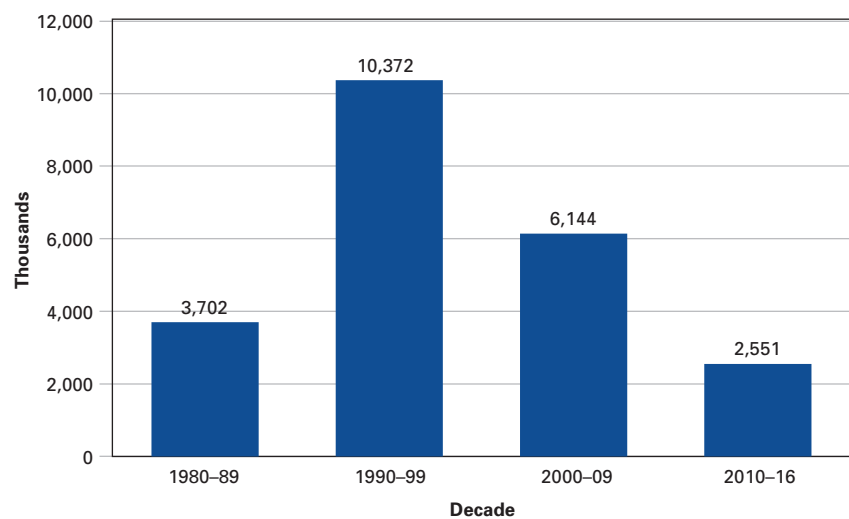
If ownership of Maine's forestland had continued to turn over at the pace and in the manner to which we were accustomed before the 1980s, I believe there would have been far less change in public ownership and conservation easements would be smaller as well. Following the Great Northern Paper (GNP) easement on the West Branch of the Penobscot River in 1981, only 26,000 acres of large forestland easements had been created by 1999 (although many small ones were created, mostly in southern Maine). The underlying causes of these ownership changes have been discussed elsewhere and do not concern us here (see Hackley 2018; Irland, Hagan, and Lutz 2011). Between 1980 and 2016, 22.8 million acres of land—an area exceeding the total area of Maine—changed hands, almost all of it in the wildlands.¹³ This counts only transactions exceeding 50,000 acres.¹⁴ Many smaller transactions, in the 5,000- to 10,000-acre range, were outright sales to subdividers and the liquidators. The

FIGURE 3: Maine Conservation Lands, 1935–2016



For data in this chart, see Appendix Table 1
(<https://digitalcommons.library.umaine.edu/mpr/vol27/iss2/>).

FIGURE 4: Total Acreage of Maine Timberland Transactions Larger than 50,000 Acres, 1980–2016



most active years of land transfers were 1990 to 1999, when 10.4 million acres changed hands (Figure 4). An estimated 6.6 million acres of these transactions concerned the 2 million acres owned by GNP in 1980, as those lands were sold, resold, divided, and sold again.

Out of that turmoil, however, some 25 percent of the original GNP ownership ended up in conservation ownership or easements.

As Figure 3 shows, conservation easements account for the lion's share of the increase in conservation lands in Maine since 1980. Provisions of those easements have evolved over the years. The earliest easements were essentially conveyances of development rights, with provisions for following regulations of the time concerning forest practices, roads, gravel pits, and the like. Some easements did not specifically guarantee future rights of public access. Some early easements were linear corridors along streams or around lakes, as such areas were of high conservation concern at the time. An example was the GNP easement, a donation of a land corridor along the West Branch of the Penobscot River where their ownership was 100 percent.

A significant portion of acreage of public fee land is under active management for multiple uses....

The conservation easements can be grouped into two classes based on size: class 1 consists of easements covering very large parcels of land, and class 2 easements cover smaller plots. Class 1 consists of the five largest conservation easements, which cover areas from 232,000 to 766,000 acres and account for 85 percent of all the easement acreage. Class 2 consists of easements that range in size from 6,500 to 36,000 acres. All of the easements in class 1 date between 2001 and 2009. Those were the busiest years for easements, accounting for 95 percent of all the easements created between 1981 and 2016 (see list in Appendix Table 6 [<https://digitalcommons.library.umaine.edu/mpr/vol27/iss2/>]).

Investor timberland owners have become more comfortable with conservation easements. Several private tracts with conservation easements have been purchased by other investors. For example, Great Northern Paper owned some 2.3 million acres at its peak. Following the dismemberment of that property, approximately 26 percent of that land had found its way into conservation ownership by the state or into NGO reserves or easements. Not only were large areas covered with easements,

but investor-owners entered into long-term timber supply contracts with mills. These easements and wood supply agreements created new patterns of shared ownership (for discussion, see Binko, Chow, and Dunning 2001; Jenkins 2008; Lewis 2001; Pidot 2005).

State Activism in the Acquisition Era

In 1987, the Maine Legislature created the Land for Maine's Future Program (LMF) to consolidate acquisition programs and adopt a more systematic process for land acquisition. Later that year, Maine citizens voted for \$35 million in bonds to purchase lands of statewide importance. LMF's bond issues have regularly been approved by voters, creating a source of funds that enabled many local cooperative projects all across the state and supplied seed money for several large conservation transactions. This was the first time that a large long-term program of acquisition was established that did not identify the locations to be acquired. The program has completed projects in all 16 counties in Maine. Types of land include mountain summits, shorelines, coastal islands, beaches, forests, grasslands, wildlife habitat, farmland, and wetlands (for history, see Barringer et al. 2004; Irland 1999, 2000; LMF 2017; LMFC 2016; Maine SPO 1997; TPL 2014).

As of the end of 2016, the program has protected 591,000 acres from development, 316,000 acres (53 percent) through easements (for current details, see <https://www.maine.gov/dacf/lmf/>). Easements leave land in private ownership and on the tax rolls, often with public access guaranteed. A significant portion of acreage of public fee land is under active management for multiple uses, often including timber management. Much of the acreage is in northern and eastern counties because of the important recreational and habitat resources in those areas (Appendix Tables 2, 3, and 4 [<https://digitalcommons.library.umaine.edu/mpr/vol27/iss2/>]). Also, land prices are far lower in these areas, and large tracts of land continue to be managed for timber.

Roughly half of all LMF projects were in the state's eight southernmost counties. Many of these projects meet locally identified needs and protect locally important areas. In these counties, fee ownership exceeded easement acres, since most of the land's value is for development; though easements are often used on farm properties. These acquisitions account for 10 percent of the total area of the fee acquisitions and 4 percent of the easement lands (Appendix Table 3 [<https://digitalcommons.library.umaine.edu/mpr/vol27/iss2/>]).

Much LMF activity has focused on retaining land in multiple-use management and on the tax rolls. In southern Maine, public recreational lands can improve nearby property values, so it is likely that any loss to the tax base is offset by higher values for nearby property. Local governments and citizens, who value these lands for many local benefits, support these acquisition projects. A local legislative body must approve of any acquisition involving more than 1 percent of a community's tax base.

MAINE'S PUBLIC ESTATE AND CONSERVATION LAND TODAY

When we add up all the conservation landholdings and easements, public and private, Maine has 4 million acres of protected lands, roughly 21 percent of its land area (Table 1). This, then, leaves 79 percent for potential future development, subject to the land's natural limitations, access, and land-use regulations.

Fee ownership by governments is not the entire story. Maine has taken the lead in conservation easements. These easements generally protect large areas and prevent future development on the land, but may not include a guarantee of future access for recreation. In Maine, 2.2 million acres of land are protected by easements, or just over 11 percent of the state's land area. Private conservation organizations hold about 85 percent of the easement area.

NGOs have also become major fee owners. Private conservation groups and local land trusts hold nearly 400,000 acres in fee, roughly half as much land as the state holds. Current NGO fee ownership in

Maine is nearly twice the area of Baxter State Park. During the acquisition era, land conservation in Maine was place-based and responsive to threats and opportunities and not guided by an overall plan. While there is much to be said for such an approach, it is hard to judge what the remaining needs and gaps might be.

By 2016, the nonprofit sector had become the dominant actor on the conservation lands, holding 2.2 million acres in fee and in easements, more than half of the state's total conservation lands. In 2016 with the creation of the KWW, the largest single federal acquisition in the state's history, federal ownership in Maine increased by 58 percent (for background, see Austin 2015; Miller 2017). Following a hallowed tradition, it was a private donation, as were Baxter State Park, Acadia National Park, and a number of the flagship state parks.

By 2016, then, the total conservation estate of 4 million acres consisted of NGO easements (46 percent),

TABLE 1: **Maine Public Estate and Conservation Lands Estimates for 2016**

	Fee	Easements	Total
Federal			
Acadia National Park and Katahdin Woods and Waters National Monument	122,832	12,416	135,248
White Mountain National Forest	49,980		49,980
Appalachian Trail Fee	32,000		32,000
National Wildlife Refuges	64,660		64,660
Federal total	269,472	12,416	281,888
State			
Public Lands	632,851	429,100	1,061,951
Parks	85,306		85,306
Inland Fish & Wildlife's Wildlife Management Areas	100,000		100,000
Baxter State Park	209,644		209,644
State total	1,027,801	429,100	1,456,901
State and federal total	1,297,273	441,516	1,738,789
Municipal	45,000		45,000
NGO	388,000	1,857,000	2,245,000
Grand total	1,730,273	2,298,516	4,028,789

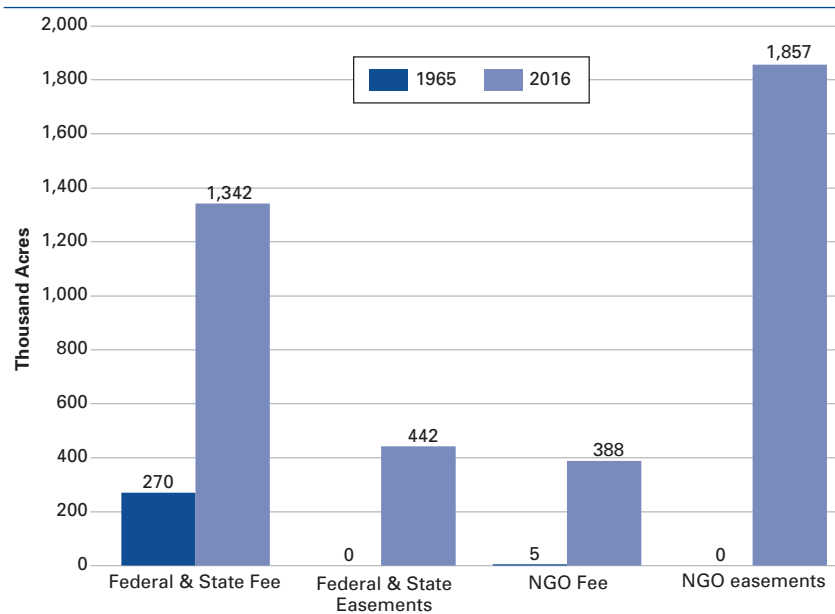
Sources: Various (see Appendix [<https://digitalcommons.library.umaine.edu/mpr/vol27/iss2/>]).

NGO fee (10 percent), public fee (33 percent), public easements (11 percent), or in total, 43 percent in fee, and 57 percent in easements (Figure 5).

Maine has adopted a system for classifying protected areas according to general use and management policies (Table 2). About one-fifth of the conservation estate (900,000 acres) is managed as dedicated *forever wild* protected reserves; virtually all of the remainder is in managed lands and conservation easements, many of which contribute to taxes under one of the use-value tax programs (see Kuehne, Puehlik, and Weisskittel 2018). Given the state's history, much of this area does not consist of undisturbed pristine ecosystems.

As noted earlier, Maine now has a large and important invisible conservation estate. This estate is the area protected by easements, roughly 16 percent of the state, or one acre in six. These conservation easements do not appear on highway maps in the vivid green often used for federal and state forest and parks. Further, municipal and small land trust properties, often important for local recreational uses and quality of life, appear on few state-wide maps available to visitors. Past dichotomies fail us in today's world. The distinction between public and private ownership has

FIGURE 5: **Maine Public and Conservation Lands, 1965 and 2016**



Total in 1965: 275,000 (Public Reserved Lands not included)

Total in 2016: 4,029,000 (Public Reserved Lands included)

TABLE 2: **Maine Conservation Lands, 2016, by General Management Approach, Maine Gap Codes**

Maine gap code	Maine gap type	Total acres	Percentage of Maine land area	Percentage of conservation land
1	Maintained in a natural state (e.g., federal wilderness areas)	325,737	1.7	7.9
2	Maintained in a natural state (e.g., state ecological reserve)	559,400	2.8	13.5
3	Managed forest fee lands & conservation easements	3,182,553	16.1	76.8
39	Farmland easements	26,651	0.1	0.6
4	Municipal land and others with no permanent conservation	45,326	0.2	1.1
9	Leased lots with no permanent protection	8	0.0	0.0
(blank)	Unassigned	3,129	0.0	0.1
	Total conserved lands	4,142,805	21.0	100.0
	Total Maine land acres	19,739,000		

Sources: Maine Office of GIS (2018); Andy Cutko, Maine Natural Areas Program (personal communication, May 25, 2017).

become less meaningful in assessing Maine's public and conservation lands. How to include the nonprofit sector? How to include easements? How to include the tribal lands?

Drivers of Change

Why did Maine's era of passivity give way to such intense activity so quickly, and why did it occur so much later than in many other states? A full history is not possible, but I can point to certain key factors, most of them hinted at earlier.

Sprawl

A proxy for the effect of suburbanization on parcel fragmentation and posting of No Trespassing signs might be the number of communities reaching a certain level of population. According to a release by GrowSmart Maine (n.d.), in 1960, only 80 of Maine's 489 organized towns had populations exceeding 2,500; by 2000, 131 towns exceeded this level, and by 2015, the Maine State Planning Office expected that nearly 150 would exceed 2,500. GrowSmart Maine (n.d.) projected that by 2015, half of southern Maine municipalities would have populations exceeding 3,500.

Ownership turnover and liquidators

The unprecedented pace of ownership turnover and the highly visible activities of the liquidators generated considerable concern among wildland advocates, recreationists, and the public. This created a political atmosphere that for the first time in Maine's history turned in favor of significant expansion in public and NGO ownership of land. The support shown in opinion polls for the proposed national park (now KWW) certainly owed a great deal to these events, which so many found disturbing.

New actors

Key new actors and approaches emerged. A bewildering list of new alphabet-soup acronyms began to appear in the newspapers—Trust for Public Lands, Downeast Land Trust, New England Forestry Foundation, Forest Society of Maine, and more. These groups were local, regional, and national. Nonprofits with fundraising and lobbying muscle began to serve as intermediaries in land conservation acquisitions and in some cases they began to own and manage large areas themselves. Large land transactions became prolonged

negotiations among a large group of actors, all seeking to pursue private investment and conservation agendas, often with sizable doses of government funds. The new actors did not merely respond to opportunities, they created them and, in many cases, were able to tap substantial philanthropic funds that otherwise would not have been available.

New and augmented funding sources

These national actors energetically tapped federal earmarks along with private donations. The new funding sources, together with new opportunities raised by restructured private landownerships, energized a massive increase in Maine's conservation lands. The speed of this change was extraordinary in the context of the history shown in Figure 3. Three of every four conservation acres were added since the late 1980s. Many were initiated by large private transactions, not by governments, and essentially none were created as part of a comprehensive long-term plan (Irland 2017).

Although there was limited direct federal acquisition of land in Maine, federal money lubricated large land deals and led to state and NGO ownership. The federal Forest Legacy Program assisted in acquiring easements and fee ownership on 34 tracts, totaling 731,000 acres, with \$74 million in funding (as of September 30, 2016). In contrast, federal fee ownership by the end 2016 was only 240,000 acres.

A compilation of conservation funding in New England by Highstead Foundation and the Harvard Forest (Buchanan 2016) determined that from 2004 to 2014, Maine expended \$70 million in state funds and \$104 million in federal funds on land conservation. An additional \$11.5 million in local funding was authorized. Total government funding, just during this decade, was \$186 million, with federal dollars accounting for 56 percent of the expenditures. Due to the abundance of large conservation opportunities available, federal funding in Maine and New Hampshire exceeded state contribution, in contrast to the other New England states. On a per capita basis, Maine's federal funding was by far the highest in New England, while its state funding was in the middle of the range. The remote forested areas of northern Maine and New Hampshire constituted important biodiversity, habitat, heritage, and recreational assets on a regional and national scale.

Comparing these funds with private financing is difficult due to different data periods involved. As an

incomplete summary, I estimate that over the years, private funding for conservation land acquisitions (including the Pingree easement and KWW) from philanthropic sources exceeded \$300 million. Additionally, many of these transactions included significant donation elements by the sellers that are not counted in this total. This total does not include smaller land trusts and other NGOs; nor does it include administrative and legal costs incurred by the NGOs.

Land posting

A tradition of allowing hunting, fishing, collecting fiddleheads (unfurled ferns), and other outdoor activities on Maine rural lands has been withering in many urbanizing areas, although data to support this claim are scant and my effort to uncover data that would reveal trends was unsuccessful. There are two recent sources, however.

First, a statewide survey conducted at the University of Maine polled not only landowners, but also recreational land users (Leahy 2016, 2018). Of responding landowners, 58 percent were considering posting their land to at least some uses in the future. Twenty percent or more cited at least occasional instances of litter, dumping, damage to trails, or erosion. In the user survey, of 300 respondents, 67 percent were full-time Maine residents; 58 percent said that posting is increasing. Fully 63 percent said that they have seen lands posted where they once recreated. Illustrating the wide variation in posting across the state, 47 percent said they lived in areas they considered lightly posted.

Second, for several years, the USDA Forest Service has conducted a National Woodland Owner Survey (NWOS) to identify patterns of landownership and landowner attitudes and practices. The sample size is small so substate information within Maine is not available.¹⁵ In Maine, the NWOS estimated (2011–2013) that 5.6 million acres are owned as *family forests*, mostly in southern and central Maine. Almost all (5.3 million acres) are 10 acres or greater in size and are held by 86,000 owners. This is 32 percent of Maine's forest area (Butler et al. 2016; <https://apps.fs.usda.gov/nwos/tablemaker.jsp>).

Seventy-seven percent of the family forestland area is held in parcels larger than 50 acres. Because of the skewness in the size distribution of ownerships, the 31 percent of owners who posted their land were removing public access from 42 percent of the family

forestland (Butler et al. 2016; <https://apps.fs.usda.gov/nwos/tablemaker.jsp>). Many tracts have multiple owners, complicating decision-making about uses, access, and management. About 60 percent of the tracts were owned jointly, by family partnerships, or trusts or estates.

These bare statistics cannot tell the full story for the heavily settled and subdivided southern Maine, as such surveys cannot gather locational details. In southern Maine, it is quite common for roadside strip sprawl to effectively cut off public access to large areas of undisturbed interior forest, which may not be posted.

In the wildlands, despite changes in ownership and considerable fragmentation of the largest former paper company holdings, landowners permit public uses over a high proportion of the land, with only local exceptions where roads are gated. Over recent years, however, hunters and anglers have reported increasing instances of access being lost due to cutbacks in landowner spending on roads and bridges. Landowners no longer maintain many remote stream crossings and occasionally close logging roads that will not be needed for some time. In many areas, road surface conditions have declined from the late 1990s, when many owners improved roads to carry huge off-highway logging rigs with gross weights as high as 100 tons. This situation is not new. In a 1986 survey by the Maine Department of Conservation, 51 percent of respondents said they had encountered No Trespassing signs in areas where they had previously visited, 45 percent found new development preventing access to traditionally used areas, and 39 percent reported encountering gates on roads they had previously used (Maine DOC 1986). On the fringes of the wildlands, frontage on many remote ponds was subdivided long ago, with gated access roads barring public use.

Snyder and Butler (2012) report on a nationwide survey, with interesting statistical analysis, conducted from 2002 to 2006, which documented declines in willingness of landowners to allow public uses and a significantly lower willingness to allow persons not known to them to use their land.

DOES MAINE HAVE ENOUGH PUBLIC AND CONSERVATION LAND?

A century ago, many believed that Maine had too much public land. One way to look at this question might

be to compare Maine to other states. It is often stated that Maine has the lowest percentage of public land of all the forested states. Based on the US Geological Survey Protected Areas Database (PAD) data for 2016, we can compare state and federal fee ownership in Maine to 21 other eastern states (Figure 6). States with less state ownership than Maine are almost all farm states like Ohio, or southern states with histories of hostility to public ownership. Based on state and federal fee ownership, Maine ranks ninth from the bottom among these states.¹⁶ It is below several of the densely populated and land-costly states of southern New England and the Mid-Atlantic. The simple average of the states in Figure 6 is 7.9 percent.

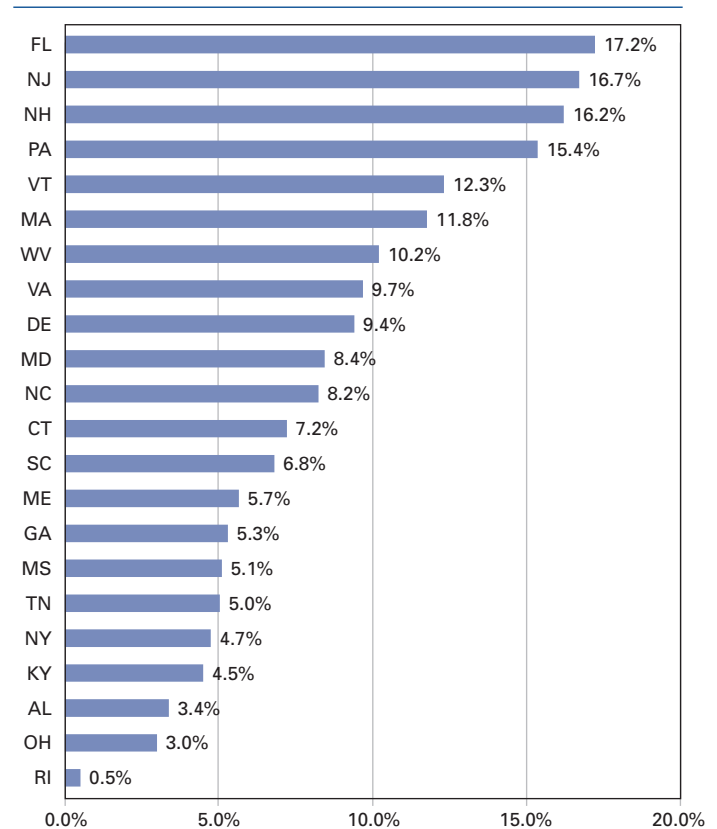
How much public land is enough? How much easement land is enough? How much undeveloped rural land in private ownership is enough? These questions have no ready answers. Others have persuasively advocated for retaining large proportions of New England's extensive forests, farms, and working landscapes (Harris 2006; Harvard Forest 2017; NEFF 2013; NEGC 2009; Wiersma 2009).

As a preservation goal, Maine, despite its achievements, has only 4.5 percent of its total acreage in public or conserved land (see Table 2). This rate is well below the widely cited Brundtland Commission goal of 12 percent of land area in reserves (Cutko 2015; Schlawin and Cutko 2014; WCED 1987). A recent proposal by the Harvard Forest and collaborators argues that 10 percent of the region's forest should be in the form of unmanaged wildlands (Harvard Forest 2017). Perhaps it is time for a thorough discussion of this question.

The Maine Economic Growth Council in 2001 adopted a goal of 1.8 million acres in conservation. That goal was tracked annually and revised upward twice. The 2011 report included easements, which means that the 1.8 million acre goal has already been reached. The council's annual reports no longer mention the issue. There was no longer any annual tracking of conservation lands after the State Planning Office was shut down.

Trails and trail corridors, often on private land, are important resources for many kinds of recreation. The Appalachian Trail (AT) and International Appalachian Trail (IAT) are marked and managed trails that cross Maine from the Mahoosucs to the New Brunswick border. Maine Huts & Trails, a private group, manages an 80-mile trail system between Greenville and Carrabassett Valley designed for a

FIGURE 6: Federal and State Fee Ownership, Eastern States, 2016



Source: US Geological Survey.

variety of nonmotorized activities with four huts for overnight stays. Much of this trail system is on private land. Additionally, Maine has around 7,000 miles of ATV trails, which are also mostly on private land and are managed by local clubs. Some 3,000 property owners permit private ATV groups to manage trails across their land (Falzone 2018). This trail system is important to many residents and visitors and represents an achievement in managing public use on private lands. Several public programs assist in funding these efforts. Originally organized for snowmobiling, the uses of such trails have broadened to horseback riding, mountain biking, and cross-country skiing.

In short, access for recreation is not well measured by acres of public land property owned or under easement because we must account for access (by road or otherwise) and for posting of private property. A 1980



Acadia National Park became a national monument in 1916, making it the first national park in the East. In 2017, it was the seventh most heavily visited park in the country. Photo by author.



Riverlands State Park offers hiking and canoeing along the Androscoggin River, a short drive from the Lewiston-Auburn area. Photo by Maine Bureau of Parks and Lands.



The Katahdin massif is the centerpiece of Baxter State Park, donated by the former governor from 1931 to 1962. The summit is the northern terminus of the Appalachian Trail and the beginning of the International Appalachian Trail. Photo by author.



Mt Agamenticus is the core of a 10,000-acre, multi-owner conservation area in southern York County that was assembled in pieces over several decades. The summit, at 961 feet, is visible from the sea.

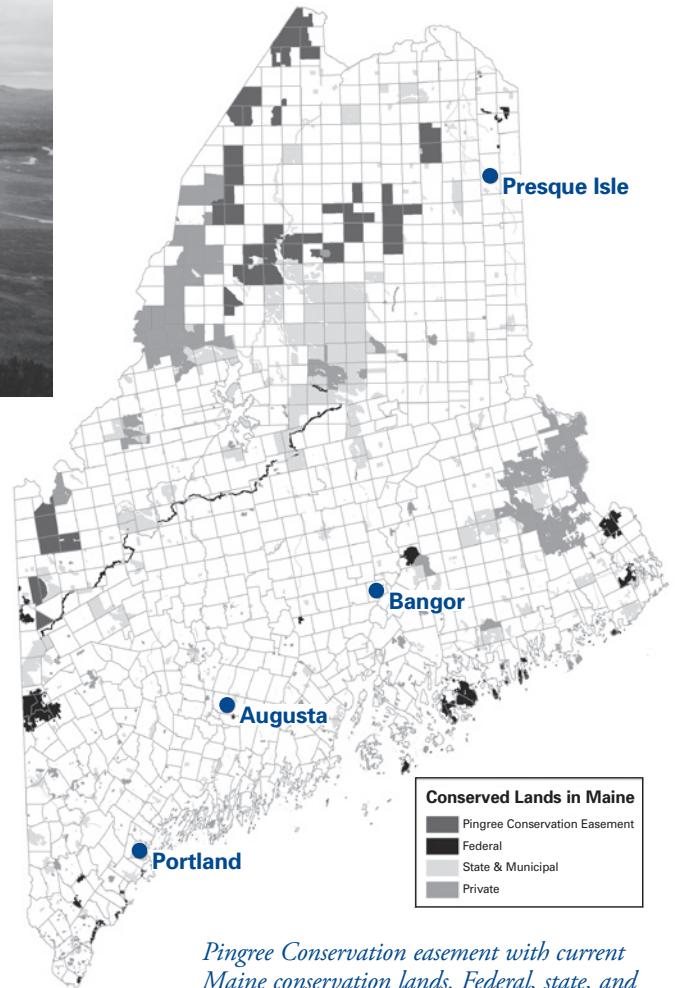


A 282,000-acre working forest conservation easement protects the Penobscot River's West Branch from subdivision and development. The easement extends watershed-scale coverage from a previous easement protecting portions of the immediate river corridor. Forest Society of Maine photo.



Chain of Ponds is a Maine Bureau of Parks and Lands unit stretching along a series of ponds near the Quebec border and famous for their coldwater fishery. Photo by author.

The Bureau of Parks and Lands' Rocky Lake Unit in Washington County includes a well-known smallmouth bass fishery. This 10,900-acre tract was acquired in a trade from a paper company and includes a 1,550-acre ecological reserve.



Pingree Conservation easement with current Maine conservation lands. Federal, state, and municipal lands are mostly fee; private are a mix of fee and easements.



essay on this topic opined: “A data base for assessing the availability of land for outdoor recreation does not exist. Information on such issues as vandalism, easements, and land posting is scanty” (Irland and Rumpf 1980). This statement remains substantially true almost 40 years later.

CURRENT ISSUES WITH PUBLIC AND CONSERVATION LANDS

The LMF Board has not used bureaucratic planners in a top-down basis to decide which tracts to acquire. Since the LMF was created, local groups and local governments brought in proposals for land conservation that far exceeded the program's available funds. Maine citizens regularly approve bonding for parks, wildlife lands, and other conservation purposes. The state's most important scenic and habitat resources are important to voters. They have seen what unrestrained sprawl has done; they have seen the No Trespassing signs going up (Acheson 2006).

Yet, in southern and central Maine, rapid suburbanization and low-density sprawl are changing the landscape that supports tourism and quality of life for residents. As the Brookings Institution (2006: 7) notes,

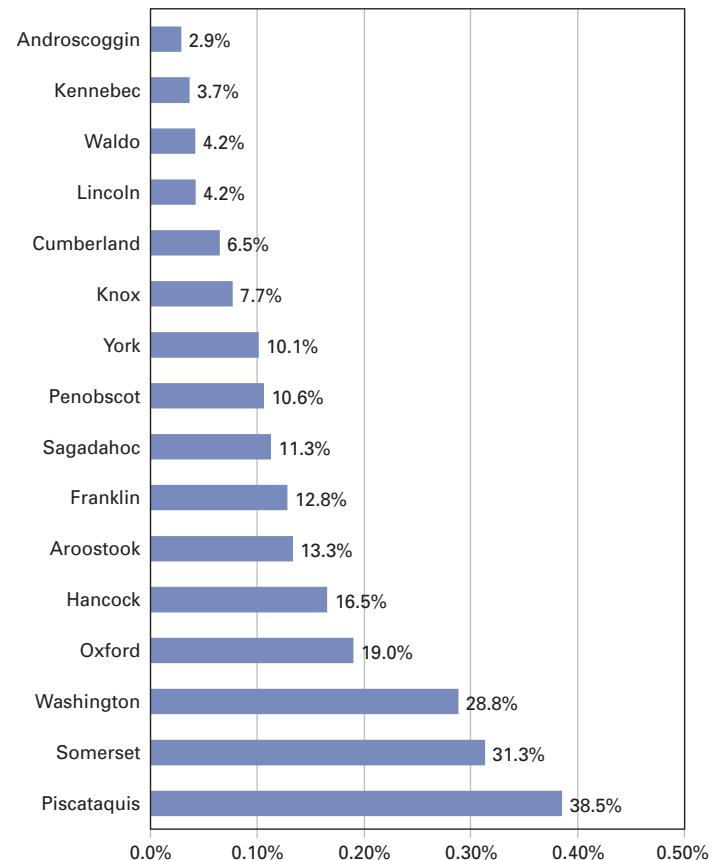
77 percent of recent growth has taken place in surrounding towns, newer emerging towns, and rural areas distant from traditional centers. As a result, the state is converting extraordinary quantities of rural fields and woodlots to residential uses. From 1980 to 2000, for example, Mainers altered the character of 869,000 acres, or more than 1,300 square miles, of rural land—a territory roughly the size of Rhode Island. In the 1990s only Virginia lost a greater share of its rural land than Maine as every region consumed rural territory.

Not only is a great deal of landscape being altered to meet demands of a small number of people, but costs of public services for all levels of government are being unnecessarily inflated. Further, the past few decades have created huge numbers of undeveloped but grandfathered lots most of which are beyond the reach of any new regulations. So, there is a great deal of stealth sprawl already on the plat books. The potential for land conservation to play a positive role in smart growth has barely been touched. The Maine Economic Growth Council's annual Measures of Growth reports regularly emphasize the importance of controlling sprawl (MDF 2013–2018).

The major thrust of the acquisition era has been to protect extensive remote landscapes in the northern Maine. In five less-populated counties, 17 percent or more of the land area of each county is in conserved status. Two-thirds of all Maine's conservation land is in four northern counties, and this conserved area exceeds the total area of Maine's six smallest counties. This amount of conservation land is clearly a major achievement. Maine, however, needs to provide better availability of open space and recreation lands closer to where most people live and where the bulk of the state's tourism business occurs in southern Maine (Figures 7 and 8).

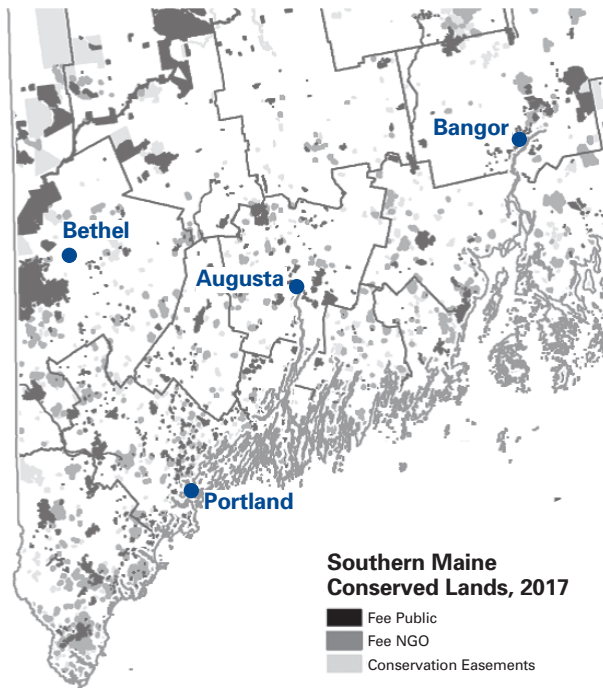
From 2015 to 2018, in areas where tax-exempt ownership has risen rapidly, local groups allied with the governor to challenge the tax-exempt status of NGO conservation lands. Criticism was especially fierce in the

FIGURE 7: **Percentage of Each County in Conservation, 2015–2016**



Source: Maine Bureau of Parks and Lands (R. Turner, personal communication) and author estimates.

FIGURE 8: Southern Maine Conserved Lands



Source: Maine Natural Areas Program.

fringes of the wildlands where local governments are already under stress from weak tax bases due to Maine's Tree Growth Tax Law, rising costs of government, and declining employment (Lansky 2014). A series of bills were debated in the legislature, which often, unfortunately, confused the effects of NGO conservation lands with other use-value tax programs and even public and charitable property of other kinds. The legislature has repeatedly declined to limit the tax exemptions for NGO conservation lands, and courts have upheld such policies. Discussing the merits of this policy is outside the scope of this article, but the issues will persist.¹⁷

The cost of maintaining quality access for recreation users can be significant, but it has not received much discussion in recent years. It is clear that the volunteer model used successfully on the AT and the snowmobile program is overstressed in many areas. Shrinking access in the more remote private lands is partly cost-based. Expenses specific to trail and access management and cleanup are often buried in public agency budgets and difficult to identify (for a rough initial sketch, see Irland 1980, 1993). Local land trusts and other NGOs struggle

to raise funds for ongoing property management and maintenance. Property owners wishing to donate land are stunned to learn that it will cost them—they need to offer, in addition the value of the land, endowment funds to pay for administration and long-term care of the property. We will eventually have to face the issue of cost recovery from the actual users of the land.

Finally, a new emphasis is emerging on protecting and restoring rivers in the state. Every year the benefits of these actions become more evident. A planned role for easements and ownership to enhance these programs and prevent the benefits from being entirely privatized—as has occurred on many lakes—is badly needed. During recent dam-relicensing actions, significant improvements in recreation facilities were provided by dam owners. Still, it may be that the projects have been more successful in providing access for boats than for anadromous fish. Access to beaches and coastal views is beyond the scope of this article, but it is highly restricted due to past subdividing and development (Duff 2016; Maine SPO 1986).

SUMMARY AND REFLECTIONS

Maine's conservation lands can hardly be thought of as a system, as that would imply conscious design. Rather, they are an extraordinary collection of areas, which, on the basis of incremental decisions, have conserved and retained for public use many of Maine's scenic and environmental jewels. Extensive areas of backland are also protected from development. Examining this history yields a few interesting general observations.

1. Though well behind peer Northern Forest states in land acquisition until the 1980s, since then Maine has seen a rapid increase in its conservation estate, driven heavily by federal and NGO funding, but with active state involvement.
2. This substantial outsourcing of planning and funding of what would normally be thought of as a government function is noteworthy in its own right, and its implications may not be immediately evident.
3. Maine plainly prefers state and municipal (37.3 percent in 2016) and NGO ownership (55.7 percent) to federal (7.0 percent), and prefers easements (57 percent) to fee ownership (43 percent).

4. In many instances, specific areas were identified for conservation based on perceived place-specific threats, either imminent or long term, and not on technocratic long-term plans. Also, and importantly, the geographic extent and practical details of many acquisitions were often constrained by the terms that private owners were willing to accept. Monday-morning quarterbacking on the easements often assumes that all of these transactions could be planned on a blank slate, which was rarely the case. The buyers could only obtain what was on offer, despite considerable negotiating on details.
5. Until the creation of the LMF Program, Maine chose to spend little of its own general fund money on either acquiring or managing conservation lands.
6. Maine and the interested NGOs have displayed a strong preference for maintaining large areas free of subdividing and development. NGOs retain considerable areas in multiple-use categories. Ironically, a much larger proportion of the NGO estate is in multiple use today than is true of the Maine portion of the White Mountain National Forest—the “land of many uses.”
7. Compared to many benchmarks for true protected reserves (e.g., Brundtland, 12 percent), the overall percentage of Maine conserved land remains on the low side.
8. Despite the gains of the past few decades, there has not been enough land conserved in southern Maine, nor, arguably, along important rivers and lakefronts. A succession of state comprehensive outdoor recreation plans (SCORP) documents this beyond dispute.
9. The expansions in Maine's conservation estate in the northern wildlands have left recreation interests exceptionally well served in that region, especially in contrast to southern Maine. It is questionable whether recreation needs can supply a persuasive case for additional conservation ownership in the north.
10. The period since the 2010 elections has seen strong pushback against many environmental causes from the governor and a significant minority of the legislature. The bipartisan support that conservation long enjoyed has frayed. Significantly, those prominent in this pushback have paid no political penalty. This

fact, together with the outsourcing noted earlier, leads to the question of, Just how deep is general public support for land conservation today? 🐼

DEDICATION

This article is dedicated to the memory of Alan Hutchinson, 1947 to 2017, wildlife biologist, NGO administrator, and negotiator of exemplary patience and skill, whose work with the Forest Society of Maine played a key role in developing many of the working forest conservation easements during the era of acquisition. In this paper, these are converted to bloodless numbers. They will live on, though, as working forests for generations to come.

ENDNOTES

- 1 I have been aided by Dave Publicover of the Appalachian Mountain Club, Tom Rumpf of The Nature Conservancy, Rex Turner at the Maine Bureau of Parks and Lands, staff at the Land for Maine's Future Board, Alison Truesdale, and many others. Andy Cutko prepared the maps. Suggestions by anonymous reviewers prompted additional work and strengthened the paper.
- 2 A conservation easement is a legal instrument that conveys certain rights to prohibit subdivision, development, and other specifically identified uses—often including public access—to a third party.
- 3 See Rolde (2004). See also Appendix (<https://digitalcommons.library.umaine.edu/mpr/vol27/iss2>) on data. At present, the tribes hold approximately 268,000 acres, partly in fee simple and partly as federal trust lands. These cannot be considered public lands in the same sense as used here, though in some senses they may be considered conservation lands.
- 4 Until the Webster-Ashburton Treaty of 1842, the boundaries, and hence land area, of the state were not determined.
- 5 When Thoreau first visited Maine in 1854, his map of the public lands was the only map he could find. His personal copy resides in the Concord Free Library. A little-known heritage of the Maine era of disposal was that the system of 6-square-mile townships with 640-acre sections was used in the Northwest Ordinance of 1785 and became the basis for land surveys and titles over much of the rest of the nation (Irland 1986). Maps of the lands retained by Massachusetts in 1820 can be found in Morris and Kelly (1976), plate 10, and in the pocket part maps in Wilkins (1963). A similar map from Greenleaf's Atlas is also found in Thompson (2010: 107). A brief search located no map of the lands conveyed in 1854.
- 6 See Wilkins (1963), which contains a valuable pocket map showing the public lots as of 1963.

- 7 Forest Commissioner Forrest Colby, in his 1919 annual report, proposed a large increase in public ownership (Colby 1919), but the recommendation vanished without a trace.
- 8 A purchase unit was authorized in the late 1930s for a large national forest in northern Washington and southern Aroostook Counties. This unit appeared on US Forest Service maps in the early 1950s; nothing further has been heard of this idea since. A Maine State Planning Board Report (Maine SPB 1936) offered a vision of a series of large parks connected by a scenic highway. This idea, too, was forgotten.
- 9 A number of Maine towns acquired forestlands by tax default, and a few retain them as town forests to this day.
- 10 As far as I can tell, the history of the wildlife management areas remains to be written.
- 11 Journalist Bob Cummings often remarked, “Maine has no environmentalists—only environmentalists when their own ox is gored.” His important role in the public lands controversy of the early 1970s is recounted in *Bangor Daily News*, December 5, 2015, “How One Man Helped Maine Win Back Its Public Lands” (<https://bangordailynews.com/2015/12/05/outdoors/>). A book on the history of the public reserved lands is in preparation by Thomas Urquhart.
- 12 A map showing public land ownerships for 1993 is found in Judd, Churchill, and Eastman (1995: 536).
- 13 From Irland Group research based on interviews with appraisers.
- 14 We use the term *transaction* as ownerships changed in a variety of ways. Some were sales of entire ownerships; others were sales of portions of ownerships. Some were due to corporate mergers, and others involved technical legal changes that did not change who managed the land. Lumping these diverse situations into a single basket and calling them “sales” conceals numerous motives and effects of the transactions.
- 15 For technical details on the NWOS, see Butler et al. (2016). An effort to work through relevant literature, planning documents such as SCORPs, and unpublished reports from the 1960s to the present might yield unexpectedly useful information.
- 16 The low ranking of New York, with its extensive holdings in the Adirondacks, results from its large total land area, which is 50 percent greater than Maine.

- 17 For details on this issue, see the following blogs (<https://fountainsland.com/becoming-a-neighbor-to-public-lands.html>; <http://www.mltm.org/homenews/post.php?s=2017-10-27-land-trusts-work-for-maine-report>; <https://pinetreewatch.org/the-public-cost-of-private-conservation/>), or this *Portland Press Herald* article (<https://www.pressherald.com/2018/02/20/maine-land-trusts-object-to-data-used-by-governor-to-justify-latest-attack/>), or (Maine Legislature 2018; Maine OG 2018).

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