

Environmental Impacts of the Hudson Valley Fur Trade in Regard to Beavers

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In 1665 Adriaen van der Donck wrote, "The beaver is the main foundation and means why or through which this beautiful land was first occupied by people from Europe." (Jacobs 109) European demand for pelts used in coats and hats at the time made beavers a valuable commodity. For over a hundred years beaver pelts were the main export of the Hudson Valley with Dutch settlers holding a monopoly on the fur trade at Fort Orange. Beavers were so central to the economy of colonial New York that they were placed on the official seal of New York City. (Miller 126) However, their usefulness in the fur trade led to a rapid decline in population with beavers vanishing almost entirely from the Hudson River Valley. Prior to European colonization, beavers in North America numbered between 60-400 million, but by the 1900's their numbers had dropped to only 100,000. (The Humane Society of the United States) The environmental effects of the loss of beavers have been heavily felt in the Hudson Valley. Beaver dams that once provided a stable ecosystem became a rarity causing many local species to suffer. In recent years beavers have begun to return to the Hudson Valley in record numbers. Their reappearance has been a joy to conservationists who have worked tirelessly to rejuvenate the species, but also a nuisance to residents dealing with flooding from the increased number of dams. Despite this, the return of beavers to the site of the colonial fur trade has been nothing short of miraculous; having returned from the brink of extinction to reclaim their place in the Hudson River's ecology.

Origins of the Fur Trade

The origins of the fur trade are believed to have sprung from seafaring merchants. When they would reach North America these fishermen would often trade small items for fur with Native Americans. However, as fur became a rarity in Europe and demand increased they soon saw the profit to be made in such a trade. Within the Hudson Valley, Henry Hudson's journey is credited with its beginning. (Dunn 63) Crew members aboard the Halfmoon wrote of beaver populations along the river,

sparking interest back home in Holland. Europeans in the 1600's believed fur to be a most valuable resource. Fur coats and felt hats were prominent fashions at the time. However, Europeans had already eliminated the beavers on their own land and were desperately looking for new sources. North America, particularly present day New York State looked to be a prime location for such a trade.

In 1609, one year after Hudson's visit a Dutch ship anchored at Fort Orange to trade pelts. For several years the Dutch would make an annual journey to the Fort Orange area to trade with the Mohicans who would collect thousands of pelts in anticipation of their arrival. (Dunn 64) However, often the ships would be stuck at port waiting for enough pelts to fill the ship, thus wasting valuable time and money. The Dutch soon realized that they could improve the operation by setting up a permanent trading post in the area. (Trelease 32) Fort Orange (later Beverwyk and present day Albany) became the primary trading post due to its convenient location between the Hudson and Mohawk rivers. Trappers were able to travel west along the Mohawk to trap beavers and then transport them down the Hudson to ports in Manhattan.

Goods & Animals Traded

The motivation for Native American involvement in the fur trade came down to the desire for European tools and manufactured goods such as jewelry, mirrors, cosmetics, clothing, blankets, cooking utensils, needles, knives, guns and liquor. As more of these goods were introduced to the Native American way of life a greater desire for them grew. The Europeans soon came to understand the Native Americans' desperate desire for weaponry and alcohol. Conflicts between other tribes and new settlers were constant and European guns provided a clear advantage for Native Americans. Additionally, having never truly experienced the affects of liquor before, the Native Americans were not cautious in their consumption and began to crave it. The Europeans took advantage of this desire for trade knowing that as such they would end up with more beaver pelts and higher profits.

In order to keep such goods coming to one's tribe, the Native Americans took up fur trapping in greater numbers, often abandoning other pursuits. (Leach 91) Many believe that the fur trade turned the Natives into addicts, desperately seeking European goods, however, it is important to recognize that through this trade they were able to acquire European firearms and thus protect themselves. In exchange for these European goods the Native Americans produced the pelts of many animals including deer, moose, bear, otter, muskrat, mink, fox and raccoon. However, the profits and demand for these animals was dramatically lower than that of the prized beaver.

The beaver's fur was considered to be more valuable than that of other animals due mainly to its two layers. The beaver's fur consists of a coarse outer layer as well as a smooth, short inner layer. This inner layer was particularly sought out for its use in felting. The short silky hairs were the perfect texture for making fur coats and fur-napped hats, which were the prominent fashions in Europe at the time. The quality of felted hats was judged based on the percentage of beaver fur used. Hats that combined beaver pelts with those of rabbits, muskrat or otter were considered to be of a lesser quality than those made entirely of beaver. (Norton 104)

The Role of Native American Tribes

Prior to the start of the fur trade Native Americans had already been hunting beavers and small fur-bearing mammals. However, they did so quite rarely and the numbers of beavers residing in the region in the year 1607 were high. (Leach 91) Due to the elusive and aquatic dwelling nature of beavers Europeans found them difficult to trap, particularly in large quantities. In order to fill this need contracts with Native American tribes were established. The Native American tribes were highly skilled in trapping methods. Often, trappers would break dams thus lowering the water level in a beaver habitat and making them easier to see. They were also known to have stalked beavers with iron tipped spears and guns, and set traps to lure them in with castoreum. (Leach 92)

The fur trade brought opportunity to Northeastern Native Americans. While in the past they had often found themselves being pushed around or altogether disregarded by Europeans their skill in trapping animals was unquestionably valuable. When the fur trade began to boom the Native Americans were finally given the opportunity to control their relations with Europeans. While the fur trade served to create loyalties amongst Europeans and Native Americans, amongst tribes a bitter rivalry was forming. Tribes saw the importance over fur trade control and fought each other for use of territories, especially as the beaver population began declining in the east and new sources were needed.

Although the Mohicans were the initial trappers in the Dutch trade, it was the Iroquois tribe that would become the most powerful. In addition to trapping themselves they became known for seizing the cargo of canoes that belonged to the Huron, who traded with the French in Canada, and trading the pelts for themselves at Fort Orange.(Leach 98) The Iroquois and Dutch formed a long lasting alliance, and as such the Iroquois were able to remain in the Hudson Valley undisturbed by Europeans for far longer than most other tribes.

The Dutch West India Company and its Decedents

Early Dutch Settlers established the Dutch West India Company in order to regulate the trade of pelts. It was the establishment of this company that many believe influenced the earliest settlers (around 1617) to settle in the area. (Leach 20) The company enacted strict rules enabling only company members to trade for pelts in effort to prevent the loss of profits, but it was nearly impossible to truly control all aspects of trade. Despite these obstacles, the Dutch West India Company flourished. In 1624 4,700 beaver pelts were transported to Holland, fetching around 27,125 guilders when sold. (Trelease 43) As time progressed so too did the amount of beaver pelts traded. In 1626 a record of shipment from the Dutch West India Company reported an overwhelming 7,246 beaver pelts. (Leach 21) By 1636, that number had more than doubled, with 16,304 pelts shipped to Holland. In that ten year time span the

price per pelt rose from 5.77 to 8.21 guilders. (Trelease 43) While the beaver trade increased, it was slowly becoming clear that trade at this volume could not continue forever. Already beavers had begun vanishing from the Hudson Valley region and trappers were pushing west into the territories of other tribes to collect beaver skins.

Overtime the English took over control of the fort but despite the change in power, the fur trade continued on as normal as the area remained predominately Dutch. Albany held the undisputed monopoly on fur trading and in order to keep it as such legislation was put in place requiring that all trade occur at the Albany fort and be shipped overseas via Manhattan. The trading post at Albany flourished through the 1670's with the amount of pelts exported per year averaging around 46,000. The Albany fort was believed to have much success because of their tendency to pay at least double that of French posts in Montreal for a pelt. Some examples of pelt pricing at Albany are as follows: one beaver pelt was worth 8 pounds of gunpowder, 40 pounds of lead, a blanket of red cloth, a white blanket, 4 shirts, or 6 pairs of stockings. For a gun, Native Americans would have to trade two beaver pelts. (Trelease 217)

Trade Decline

A decline in local beaver populations became an economic nightmare for fur traders. Tribes found themselves encroaching on each other's land while trapping resulting in often bloody conflicts. The Mohicans and Mohawks were consistently at war for this, as each longed for the goods that beaver pelts could buy. Native American tribes found themselves devoting more time to their wars over land rather than the actually trapping. From the 1680s to early 1700's when these wars were in full swing the beaver trade felt the effects as the average number of pelts shipped annually only ranged from five to fifteen thousand. (Trelease 216) Despite the decline from the fur trade's heyday, it was in no way dead in 1700's. Rather, the nature of trade in the colonies began to change as more foodstuffs were

produced in the colonies thus creating a more diversified set of goods for export. Beavers were no longer the sole source of income for the trading post.

In addition to the decline in trapping due to conflicts between tribes, the fur trade was feeling the economic effects of changes back in Europe as well. Beaver hats were beginning to go out of style during the 1700's so by the time tribes were at peace and able to resume trapping, the price for skins had fallen. At one point, out of desperation ten beaver pelts were sent to the King with a note begging that he make a hat out of them so that his subjects might follow suit. (Trelease 217) Additionally, as colonization increased the Dutch West India Company's monopoly on the beaver trade fell into decline. Private traders were finding ways to make a profit, often by meeting Native American trappers in the wilderness before they reached Albany with their pelts. (Jacobs)

While tribal wars and shrinking demand played a role in the decline of the fur trade, the greatest factor was the disappearance of beavers from the Hudson Valley and surrounding areas. Unlike other hunted animals, beavers do not breed as often and as such the source of beavers in the Hudson River Valley was not replenished. Additionally, Beavers are not traditionally migratory animals, traveling around only 6 miles to find a new home, so once they had been hunted there was little hope of another group moving in (The Humane Society of the United States). It became necessary for Native Americans to push west in effort to find greater sources of beaver, but by 1640 there was little to no sign of beavers from the Hudson River west to the Genessee River. (Leach 98)

Environmental Impact of Beavers & Problems Associated with their Loss

The most commonly known influence that beavers have on the environment is in the building of dams. Dams help to raise the water level in ponds and rivers which encourages plant growth and creates a lush ecological environment. The still ponds allow for sediments to sink, thus creating a more purified pool of water. These ponds also attract small species such as mayflies that serve as food for fish,

amphibians, reptiles and birds. These small animals then serve as food sources for larger mammals, thus proving that the beaver is essential in the formation of diverse, flourishing ecosystems.

The importance of the beaver from an ecological standpoint is undisputed. Eric Sanderson, an ecologist at the Wildlife Conservation Society explained, "The beaver, it turns out, is a landscape architect, just like people. You need him to flood the forest, which kills the trees that attract the woodpeckers that knock out cavities that wood ducks use for shelter." When the fur trade eradicated beavers from the Hudson Valley it disrupted entire ecosystems such as this, creating a chain of events that put several other species at risk and forced to find new habitats. The woodpecker example is just one of dozens, in fact beavers are known as a keystone species, a title given to species that provide the basis of support for an ecosystem. (The Humane Society of the United States) Environmentalists believe that the ponds and wetlands created by beaver dams can be useful in regard to climate change, by providing natural water storage during hot, dry summers. The use of beaver dams for water storage has intrigued policy makers; the Washington Department of Ecology recently granted \$30,000 to The Lands Council of Spokane to study such a system. (Kramer) Using beavers for projects such as this would be a lower cost, natural alternative to manmade reservoirs.

The Return of Beavers in the Hudson Valley

Between the effects of the fur trade and the clearing of the beaver's natural habitat for agriculture and industry, the beaver population especially in the northeast was almost entirely spent by the 1900s. In 1895, there were only two known colonies of beavers located in the nearby Adirondacks. It was not until recently that beavers have once again begun to appear in the Hudson Valley as well as the western United States and Europe, where they were thought never to return.

The disappearance of beavers and their habitat led to attempts to revive the species. Federal and state authorities began regulating the trapping of beavers; some states even banned trapping

altogether. Conservation groups undertook efforts to reintroduce them into their natural environment as agriculture declined and the land was once again available. Beavers were reintroduced to the Adirondacks and Hudson Valley region from Canada and Yellowstone National Park. These combined efforts have succeeded in bringing the once nearly extinct species back. Between 1902 and 1909, 35 beavers were released in northeastern New York, and in the following years their populations expanded exponentially. (Porter 89)

In 2007, a group of Wildlife Conservation experts at the Bronx Zoo discovered a lone beaver roaming the grounds. This find was considered a huge success for environmental conservationists. After the beaver trade of the 17th Century beavers had vanished from the Hudson River and surrounding areas. The one found in the zoo in 2007, later named Jose, was believed to have found his way into the zoo via the Bronx River. Jose's zoo visit marked the first time in 200 years that a beaver had set foot in New York City. (Miller 126)

Unfortunately, the return of Beavers has created some unforeseen annoyances. Many of their actions wreak havoc for humans and animals living nearby. A single beaver chews down hundreds of trees per year, creating an issue of deforestation, not to mention the destruction that can occur when these trees fall. The dramatic increase in beaver population in conjunction with these effects led to talks of regulated trapping to control the species, an idea that would have been unheard of 50 years before when beavers nearly extinct. Beavers have also been a bit of a nuisance for farmers in the northeast, many taking up residence and building dams in bodies of water in agricultural regions. This has led to flooding of fields and crop damage for the beavers' neighbors. (Handwerk) Residents of beaver dwelling areas complain of road and trail flooding. It is important to note that these issues don't outweigh the good by any means. The return of beavers has such a positive impact on the building and

diversification of ecosystems that it is essential for their human neighbors to develop adaptive measures so the two groups may live alongside one another in peace.

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