

When in 1609 Henry Hudson sailed up the river which now bears his name, the territory comprising New York State was for the most part heavily forested. The type of forest cover varied due to differences in soil, altitude and climate. Hardwoods such as beech, maple, birch, basswood and ash predominated in many areas with spruce and fir being found at higher elevations. Hemlock and white pine were the most widely distributed of the conifers. The trees in the lower Hudson valley were mainly oak, chestnut, white and pitch pine. On Long Island could be found oak and pitch pine together with more southerly varieties such as sweet gum, holly and persimmon.

Two grassland areas, one on Long Island and one in western New York, were exceptions to the general rule. The former, called the Hempstead Plains, was a favored habitat for the Eastern Pinnated Grouse or Heath Hen. The other area, known as the Genesee country, consisted of an extensive tract of swamp grassland together with open woodland, much of it oak. It contains fertile soil easy of cultivation, woods free of undergrowth, and extensive meadowlands.

Although cutting down the forest began with the earliest settlement, it was some time before serious inroads were made on the forest cover of the state. Clearing the land was hard, slow work. In 1700 it is estimated that there were 25,000 white people in New York State, most of them on Long Island and in the lower Hudson valley, about one person for each two square miles of land in the state.

While the Dutch were settling the southeastern part of the state, French explorers began penetrating our territory from the north. It was not long

before they had set up a flourishing fur trade with the Indians. Making use of the St. Lawrence River and the Great Lakes, the French established forts and trading posts at strategic points and maintained control over a considerable part of New York State until the end of the French and Indian wars.

It is possible to make conjectures about the bird life of the state during this period based on statements of contemporary writers together with a knowledge of conditions which existed prior to major changes resulting from European occupation. The clearing of large areas of land and putting them to agricultural uses resulted in great changes to bird life. The creation of many miles of "edge" was an important factor. Some species benefited while others were adversely affected. For the most part birds that were able to adapt themselves have flourished, many now being much more numerous than they were 300 years ago.

The early settlers were mainly concerned with game birds and most early references were confined to this group. As would be expected, our ancestors were more concerned with practical values than with scientific inquiry. Early French explorers, notably Samuel de Champlain and Pierre Radisson, who travelled in what is now New York, made brief mention of game birds. An interesting tale of the capture of a live bird is contained in the account of the voyage of Count Frontenac on the St. Lawrence River in 1673. The event took place in the Thousand Island region and is quoted as follows: "We had the pleasure to catch a small loon, a bird about as large as a European bustard *Outarde* of the most beautiful plumage, but so difficult to be caught alive, as it plunges constantly under water, that it is no small rarity to be able to take one. A cage was made for it, and orders were given to endeavor to raise it, in order to be able to send it to the king." (Recounted in Franklin B. Hough, 1853, History of St. Lawrence and Franklin Counties, New York, 36.)

An early list of birds occurring in southern Canada is to be found in the writings of Baron Armand Louis de Lahontan (1667-1715). At that time southern Canada included portions of New York State and, since Lahontan travelled within our borders, it may properly be assumed that some of his observations were made there. He spent seven years in Canada, first as a common soldier, later becoming an officer. Being interested in nature he acquired a general knowledge of animals and birds and wrote extensively of his observations. He gave us one of the earliest accounts of the drumming of the ruffed grouse. His list of birds of the "south countries of Canada" includes 23 species or families.

Despite the fact that New York State was a battleground during much of the eighteenth century, the clearing of forests and settlement of the land continued at an accelerated pace. The Schoharie and Mohawk valleys were occupied prior to the Revolution. The Genesee country was settled rapidly following the war. By 1794 most of the Indians in the state were on reservations. At this time the white population was about 350,000 and the eastern part of the state, except the more mountainous regions, was pretty well settled.

The impact of civilization had a definite effect on bird life during this period. Certain game birds, notably the Heath Hen, Wild Turkey and

Passenger Pigeon became scarce in the vicinity of centers of population. Game laws were passed as early as 1708 but little attention was paid to them. The Heath Hen was nearly extirpated in the state by 1800. The destruction of forests combined with unrestricted shooting made the Wild Turkey scarce in settled areas. The same factors sealed the fate of the Passenger Pigeon, although the sad story of its final destruction belongs to the nineteenth century.

Scientific interest in natural history gained impetus during the eighteenth century, mainly in Europe but to a lesser degree in this country. Botany led the way followed by the other natural sciences. During this period Linnaeus laid the foundation for the classification of plant and animal life. One of the first men in America to learn and endorse the Linnaean system was Cadwallader Colden. A Scotchman by birth, Colden spent most of his life in New York and was one of the leading scientific men of his day. He gives us the following picture of the forests of eastern New York at the time he served as surveyor general of the colony (1738): "The southern part of the country [Hudson Valley] to within twenty miles of Albany is generally covered with oaks of several sorts, intermixed with wallnuts, chestnuts and almost all sorts of timber. The Mohawk's country is generally covered with beech, maple and elm." (Recounted in 1851, *Documentary History of New York IV*, 172.)

Most of the writing on birds in our state during the eighteenth century was done by travelers. Some were soldiers like Thomas Anburey and Sir Charles Bragden, others were missionaries to the Indians as Gideon Hawley and George Loskiel, still others visitors such as Peter Kalm. There was, however, one resident observer who spent most of his life in New York State. Hector de Crevecoeur was born in France, came to America at the age of nineteen and settled in Orange County. He is remembered for his "Letters of an American Farmer," published in London in 1782 and containing numerous references to his observations on birds.

In concluding this account of the early period in New York State ornithology mention should be made of John and William Bartram. John Bartram, the father (1699-1777), made his home near Philadelphia and travelled extensively, collecting plants and observing nature. In 1743 he journeyed to Onondaga (Syracuse) and Oswego, writing a detailed account of his observations. William Bartram, his son (1739-1823) is credited with being the first scientific American ornithologist. In his early years William spent some time in New York State, making at least one trip through the Catskills with his father. He became a leading botanist and ornithologist and is best known for his "Travels through North and South Carolina." His principal contribution to ornithology is his "Catalogue of Birds of North America" in which 215 species are listed.

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