

## Appalachian Beekeeping 1700 and Today

Appalachian pioneers were a very special kind of people; adventuresome, daring, driven by just pure desire for freedom and/or property ownership. Land was for the taking, the frontier was open!! Eking out a living on the frontier was not as simple as life in the East where farms were being established to produce a supply of food and were receiving shipments of goods from Europe.

One's survival was dependent upon using what was at hand when it was available. People grew, gathered, hunted, bartered or starved. Honeybees were not native to the Americas. European colonists originally imported honeybees from around 1600 to 1700 to use honey for sweetening. Another important use was the beeswax for candle making, waterproofing and other things. The first honey bee species imported were likely European dark bees

Wild bee hunting tales of hunters trailing bees from watering holes to their trees, then using crosscut saws, axes, wedges, and jugs, loading all onto a flat sled with a portion of the tree with honeybees to drag it home to put in their homestead apiaries. Honeybee hives can hold hundreds of pounds of honey; more than a colony of bees can eat in several years. These parts of trees or logs were called Bee-gums. Bee-gums were also made from lumber into large square hives to house swarms. A swarm is a division occurring when bees get too over populated for their dwelling and go elsewhere to make a new hive.

Stories of trading posts where bee-gums were kept behind the store are told where people would bring their own crocks to take away the honey in the comb. They did not have an extractor for separating the liquid honey. A bee-gum or two were commonly found out around every homestead. Early Americans knew that every small orchard must have a hive or two of bees to set proper fruit. Honey was a primary colonist sweetener until the development of cane and beet-sugar. Settlements often had their own resident beekeeper.

According to the National Agricultural Statistic Service, honey production declined by 11 percent in 2006. In 2005, for the first time in 85 years, the United States was forced to import honeybees in order to meet its pollination demands. Dr. May R. Berenbaum, head of the department of entomology at the University of Illinois, says that "if honeybees' numbers continued to decline at the rates documented from 1989 to 1996, managed honeybees ... will cease to exist in the United States by 2035."

Varroa destructor is an external parasitic mite that attacks honey bees and can only replicate in a honey bee colony. It attaches to the body of the bee and weakens the bee by sucking hemolymph. The mite spreads RNA viruses like Deformed Wing Virus to the bee. A significant mite infestation will lead to the death of a honey bee colony, usually late autumn through early spring. This parasite will have the most pronounced economic impact on the beekeeping industry. It may be a contributing factor to Colony

Collapse Disorder (CCD) which is threatening hives throughout North America.

The wax moth was accused of destroying healthy bee colonies in the 1800s. One creative beekeeper's way of controlling wax moth follows below, quoted from a book titled "Moore's Universal Assistant" (1878):

“A bee raiser has patented an invention for the protection of bees from the attacks of the honey bee moth, which enters the hives at night, and rifles the stores. Hens, he observed, retire to rest early; but bees seek repose earlier still; no sooner are they sunk into slumber, than the moths steals into their abode and devours the produce of their toil. He has now built a stand of hives with a hen house connected. The bees first betake themselves to their dwelling and settle themselves for the night. The hens then come home to roost on their perch, and as they take their places upon it, their weight sets some simple mechanism to work, which at once shuts down the doors of all the hives. When the day dawns, however, the hens leave their roost and the removal of their weight from the perch raises the hive doors, and gives egress to the bees in time for their morning's work.”

One of Nature's ways of populating the earth is with pollinators. Before honey bees were imported and today, there is a large variety of native bees and insects which pollinate plants. The honey bee does a massive job of it but the native bees do just as well. Different types of native bees are more closely linked to the various seasons than the honeybee. Bumble bees, hornfaced, ground dwelling, carpenter, squash, sweat, and polyester bees are examples of native species. Native bees, unlike honey bees, do not fly a great distance from their nests and may forage within only 200 yards.

To protect our native bees we need to preserve and create wildland areas. Most bees love sun and prefer to nest in dry places, piles of branches, and in sunny undisturbed land. Offering season long forage in bloom is important. For example, willow is an excellent source of nectar and pollen in early spring, clover and honeysuckle is good in summer, while asters in fall. Unlike honey bees, the males also pollinate the crop.

There are more than 3500 species of native solitary bees in North America. These effective pollinators, also called pollen bees, are usually gentle with a mild sting. They make small amounts of honey and very little wax so their most important job is pollinating.