



## *Saving Bees When Removing Trees: A Win-Win Story*

**By Roger Martin, Head Arborist & Head Beekeeper, Cave Hill Cemetery**

In the depths of winter, the wild bees at Cave Hill Cemetery are huddled inside hollow tree trunks or in similar sheltered spaces where they have set up their hive. Clustered together, the worker bees move their wings to create warmth. They survive on their stores of honey. Most likely the whole colony is together, because a honeybee can't survive on its own in temperatures below 40 degrees. During a typical Kentucky winter, there are few resources for bees outside. Thus, when winter comes, bees stay home!

So there we were one winter with a tree that needed to be removed. And we knew there was a long-established colony of bees inside its hollow trunk. Could we remove the tree while saving the bees?

Sometimes it is necessary to remove a tree that is dead, diseased, or at risk of falling. We want all our guests to enjoy Cave Hill's beautiful collection of trees in the safest manner possible. The main role of our team of certified arborists and TRAQ (tree risk assessment qualification) credential holders is to protect this collection of trees, maintain the tree canopy, and mitigate risk.

In this case, the tree slated for removal was a red maple (*Acer rubrum*). The red maple can be a life saver to honeybees, which are attracted to the early-season pollen and nectar of the red maple flowers. Red maples produce a lot of pollen, and they are one of the first native species to flower, usually between mid-February and mid-March. The bees inside this red maple were smart. They set up home inside one of the cemetery's first providers of pollen and nectar of the season.

Red maples, however, are known for their poor branching structure and other issues. They don't recover well from damage, and are prone to trunk and internal decay. They have a documented failure history. The presence of the bee colony, along with other indicators, confirmed to us that a large segment of this red maple was compromised. For the sake of public safety, the tree had to be removed. But eradicating the bees was out of the question. Bees are important to the health of the cemetery's plants and trees, while at the same time bees are essentially endangered. Saving the colony of bees and removing the tree had to be a coordinated effort, and timing was crucial.

The maple was big enough to necessitate using a crane or boom truck. The section of trunk with the bees inside was plenty big as well. We waited for a particularly cold winter day to schedule this removal so the bees would likely be passive. We also spoke with the tree removal contractors about our plan to save the bees. Everyone was on board with the plan. Prior to cutting, we marked the trunk segment that had the bees inside and capped the top and front entrances with heavy roofing paper. When the workers got close to the colony, they proceeded slowly and carefully to protect the precious cargo inside. After the trunk segment was cut and suspended from the hook of the boom, the workers sealed the bottom opening so the bees would stay inside. The rest of the tree was safely removed.

That same day, we relocated the log containing the bee colony to another area of the cemetery, positioning it in the same orientation it had been in when part of the tree. The colony of bees has survived for more than a year now in its new location, and Cave Hill still benefits from the work the bees do. A few jars of Cave Hill honey made the perfect thank-you gift for the crew that helped us accomplish our goal of keeping Cave Hill safe for our guests while also saving the bees. This win-win story is one example of how arboriculture and beekeeping regularly go hand in hand at Cave Hill Cemetery. We value both our pollinators and our trees.