

# Pinehurst Provides Habitat for Cavity-Nesting Species

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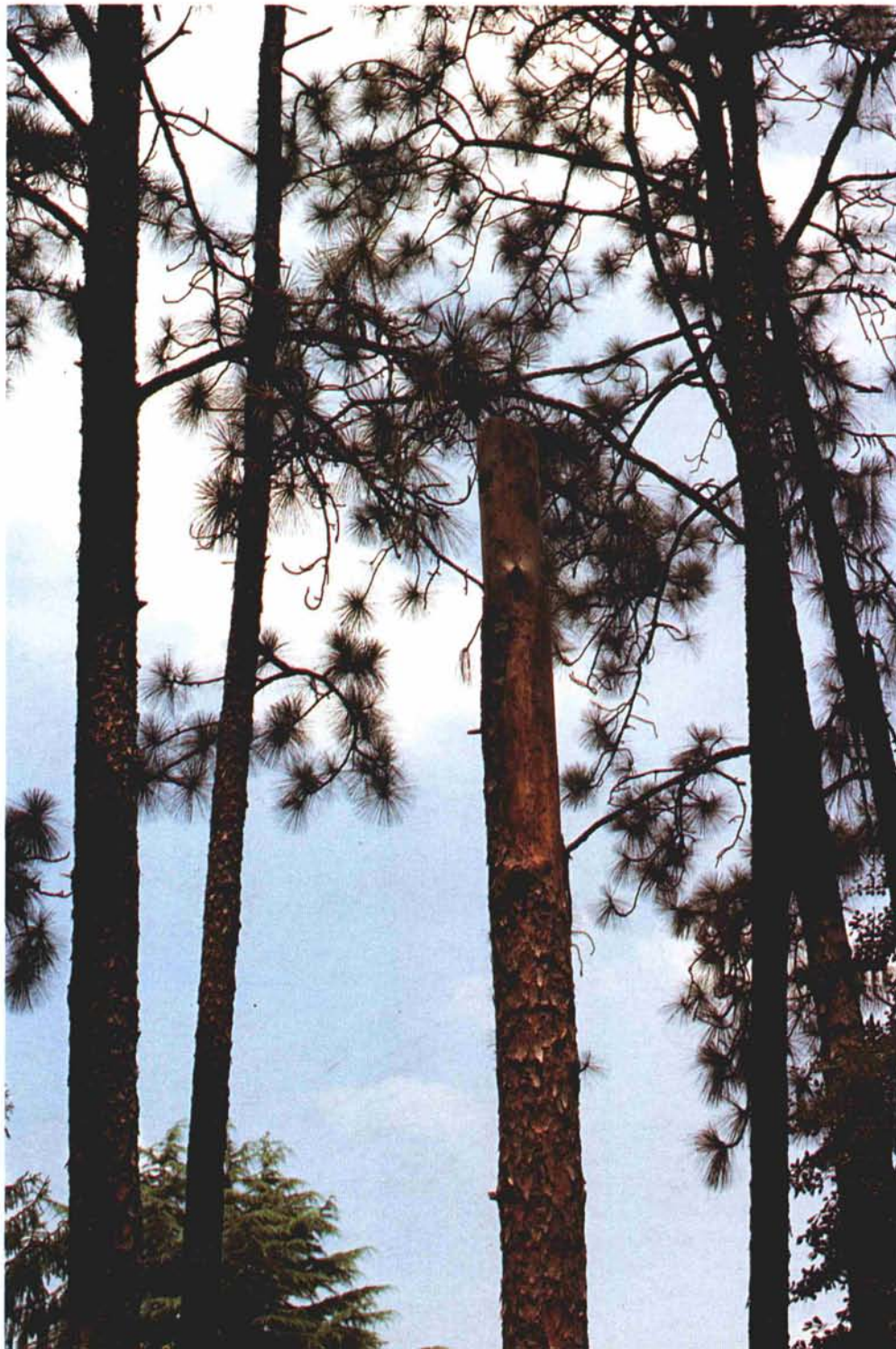
**A**LL BIRDS and mammals have specific nesting requirements that are necessary to complete their life cycle. One category of birds includes the cavity nesters. Species such as the common flicker, great crested flycatcher, downy and red-headed woodpecker, barn and screech owl, nuthatch, and kestrel all require cavity trees to reproduce and raise their offspring. Unfortunately, these birds have not reproduced well in “managed” landscapes that are often void of cavity trees.

We became particularly aware of this fact at Pinehurst four years ago after finding a common flicker nesting in a small dead pine tree near the 18th tee on Course No. 2. Surprisingly, the flicker excavated a cavity in a dead tree that we didn't know existed. Normally, if we located a dead tree, we removed it as soon as possible. As we observed the bird over the next few months, we wondered where the young would go after they fledged. To our knowledge, there were no other cavity trees on our golf course, especially since we continued to remove them as they died.

At about the same time, two pine trees were struck by lightning and died. As was standard practice, the trees were set for removal as soon as the equipment and time could be scheduled. However, because of our concern for the birds and our desire to create habitat for them, we decided to test another theory. Instead of the usual practice of complete tree removal, we cut out the top portion of the tree and left a 14-foot-high stump. Our hope was that the birds would excavate cavities in these stumps and accept them as suitable living quarters.

*Cavity-nesting birds require tree cavities to reproduce and raise their offspring.*

*At Pinehurst, artificial cavities are excavated in dead trees to provide nesting sites for cavity-nesting birds such as the common flicker, great crested flycatcher, and the red-headed woodpecker. The designated cavity trees blend into the surroundings.*



This project was not without risks. Obviously, our first concern was creating a potential liability for the resort. After consideration, we realized we had three factors in our favor that significantly reduced the chances of a lawsuit. First, the two trees we tried this experiment on were located deep in the woods. They were completely out of the normal traffic patterns and posed no threat to golfers. Second, because only a 14-foot stump remained, we felt the chances of the wind blowing it over were practically zero. Finally, we were closely monitoring these cavity trees and planned to remove the trees before they became too unstable. (It should also be noted that when removal becomes necessary, it is scheduled prior to or after the nesting season.)

Since this project was in the experimental stages, we were anxious to see if new habitat for birds could be successfully created. Finally, after eight long months, a red-headed woodpecker was discovered excavating a cavity in one of the trees. We are proud to say it has made its residence there for the past two summers. Fourteen months

after cutting the second tree, an American flicker excavated a cavity and used the nest site for one season.

Currently, 16 14-foot stumps are found around the golf course. Aesthetically, these trees are not displeasing. In fact, if you are not specifically looking for the trees, you do not notice them. It is estimated these trees will last between 5 and 10 years, depending on their age, size, and structural soundness. Due to the success of our program and the stability of the cavity trees, we have begun to apply the same practice closer to cart paths. Recently, Pinehurst experienced a tremendous wind storm, with winds clocked at over 100 mph. This storm blew over 125 trees, *none of them cavity trees*. We now feel more confident in the stability of these newly created cavity trees and are convinced they have minimal liability potential.

The process for creating cavity trees is simple and inexpensive. To reduce the length of time it takes for a cavity to be created, we took the initiative to create a cavity ourselves. First, we removed a 4-inch slab off the top of the tree. This was accomplished

using a chain saw. We then drilled an entrance hole according to dimensions for the targeted species.

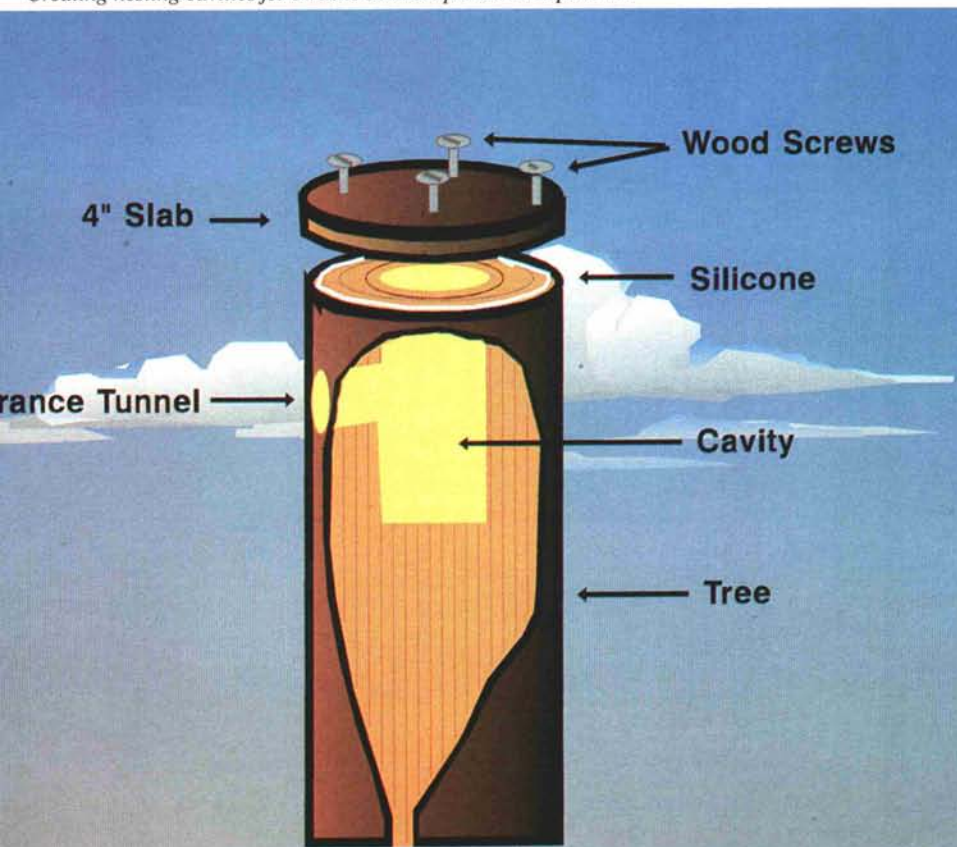
The cavity was more difficult to create. A combination of an adjustable wood bit and several chisel types was used. Specific information on cavity sizes for species in your region can be obtained from your local U.S. Fish and Wildlife office or Audubon Society. The cavity sites not only benefit the intended species, but provide nesting sites for secondary birds as well. It is important to drill the entrance hole at a slight upward angle to prevent water from entering the cavity. Finally, we siliconed the slab and used wood screws to secure it back in place on top of the tree. Obviously, since we have just begun this program, we have not had time to evaluate the effectiveness of this procedure. We will continue to monitor the program over the next few years to determine its success.

The potential for creating habitat for these species and others that are not present on your golf course is significant. For example, there are no commercially available nest boxes targeting the majority of cavity-nesting species. Someone with a creative marketing flair could produce a structure similar to a dead cavity tree. These could be pre-drilled to the correct dimensions and height and made to resemble tree bark. These structures could be permanently set in the ground and erected in the woods in ideal locations. This would be one more step in creating habitat diversity instead of waiting for trees to perish.

The program that we have implemented is a long-term commitment. Over time, as our sites increase and the excavation of existing areas creates larger cavities, we will attract a larger diversity of species. Although we have seen only two cavity-nesting species use the trees, the other trees are beginning to decay and show signs of excavation activity.

If enhancing the environment on your golf course is important, this operation can play a part in improving wildlife habitat. It is very rewarding to observe new species inhabiting an area after habitat enhancement work has been done. The program is inexpensive, allowing most golf courses a means to incorporate these practices into their plans. If your course takes a proactive role in habitat creation, you and your organization will reap the environmental benefits of living in harmony with nature and encouraging the proliferation of these species.

*Creating nesting cavities for birds is both simple and inexpensive.*



*Scott Lavis became the golf course superintendent at Fiddlesticks Golf Club, Fort Myers, Florida, in August 1995.*