# Transforming Turf Into Award-winning Wildlife Habitat

*Bob and Mary MacDonald with a sign signifying the Jefferson County Soil Conservation District 2013 Conservation Farmer of the Year award.*

Natalie Freeman

*by Matthew Cameron*

About a good PGA golf drive from the back nine on Baneberry Golf Course, in an ordinary suburban community, lies 10 acres of excellent wildlife habitat that isn't just there by chance. And while 10 acres may not seem like much, the distinctness of this property in relation to the surrounding lawns dominated by Bermuda grass and fescue, is absolutely remarkable, thanks to one determined landowner, backed by the TWRA and NRCS.

Bob MacDonald, originally from New Jersey, relocated to East Tennessee a little over a decade ago and purchased the property where he and his wife Mary now reside. Being conservation minded and with a daughter who is a biologist, it just seemed "natural" for Bob to manage his property to benefit wildlife. As a subscriber to *Tennessee Wildlife*, he read an article in the February 2007 issue that piqued his interest in government programs that assist landowners in cost-sharing and technical assistance for wildlife conservation. He contacted TWRA biologist David Brandenburg, who came out, evaluated the property and introduced Bob to EQIP (Environmental Quality Incentive Program), which provides cost-share assistance to landowners willing to implement sound wildlife management practices.

Prior to his purchase, "The property was intended to be a sod farm and was covered with thick Bermuda grass," says Bob. Thick, carpet-like grasses such as Bermuda are ideal in a golf course community but have very little wildlife benefit. This prompted the process of eliminating the Bermuda grass and other undesirable vegetation to prepare the way for a transformation into beneficial wildlife habitat.

In September 2008, David and Bob sprayed the entire area with an herbicide to kill undesirable vegetation. "About six months later, it looked like the moon," says Bob. "The spray killed everything except the pine trees." Once the non-desirable and non-native plant species were out of the way, wildflowers and Native Warm Season Grasses (NWSG), including Big Bluestem, Little Bluestem, and Indian grass were planted using a TWRA-provided seed drill in May

Steve Marion

*Private Lands Biologist Aubrey Deck on a controlled burn of the NWSG field owned by Bob and Mary MacDonald.*

2008. By late summer, the native grasses and flowers were already sprouting and the area came to life.

With the native grasses and wildflowers taking root, the next challenge was to begin working on removal of undesirable and invasive trees and weeds. American Sweetgum, Boxelder, Bradford pear, Autumn olive and others were met head on with a lance-like tool that injects a selective herbicide into the tree trunks with .22 caliber rimfire cartridges. "We've used over 900 rounds already," says Bob. "But that's for about 250 trees. The larger trees require more injections."

Other methods of killing undesirable trees include using a chainsaw to girdle the tree trunks and spray herbicide or cut the trees and spray the stumps. Because Bob is managing for wildlife species that use fields, areas that have grown into young forests are undesirable. However, wildlife managers recommend some woody vegetation in the form of shrubby cover, prompting Bob to plant hedgerows and manage the field to allow thickets to grow. Species like northern bobwhite quail actually require these "shrubby areas" within fields and, although these 10 acres are not enough to manage for quail, in the right landscape they can definitely make a significant impact for the species.

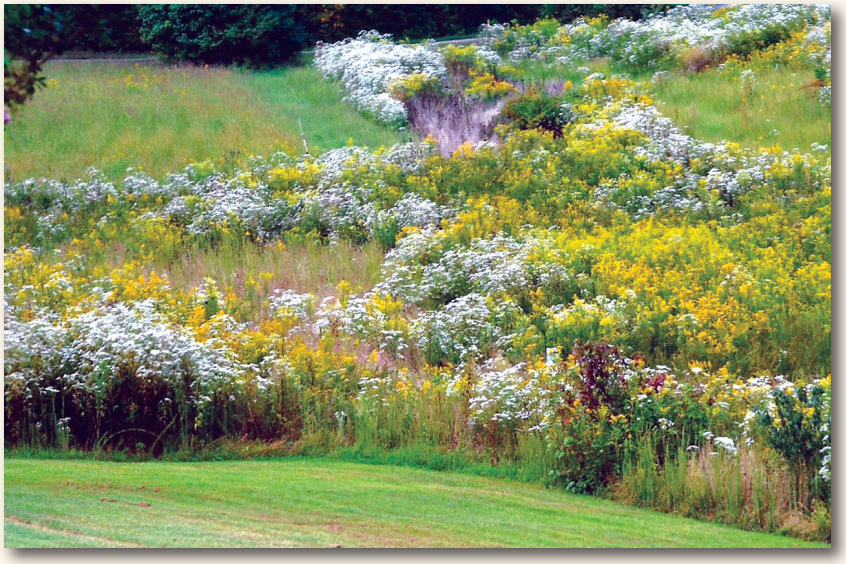
Another tool that the TWRA and NRCS is using on the project is controlled burning. Funded by both the TWRA and NRCS, Private Lands Biologist Aubrey Deck conducted a site visit in the spring of 2012 for a controlled burn, which helps kill many invasive pioneer tree species (sweetgum, etc.) but doesn't harm native herbaceous plants.

"Early-succession plant communities can be burned, disked, and/or sprayed with selective herbicides every 3-5 years to prevent the field from becoming a forest," says Aubrey. He states further that "The traditional method of aesthetic mowing, bushogging, or cutting hay is about the least wildlife-friendly thing any landowner could do because of the destruction of nests and fawning, food reduction, and the removal of cover when it is needed most, such as during spring for quail and turkey brood-rearing."

As for how the wildlife has responded to the transformation, Bob is amazed at how many different wildlife species use his property. "Deer are bedding here and turkeys are nesting. I've seen rabbits, field mice, grassland songbirds, eastern box turtles, snapping turtles, raptors, and several other species," says Bob. The insect response has also been tremendous. "You can come out here on a hot day and literally feel the buzz in the air from all the honeybees that are working the flowers."

He is even excited to have coyotes and opossums living here and enjoys the photo opportunities they have provided. Several bluebird boxes are also posted around the fringes creating a very nice bluebird trail, which Bob extends to his neighbors to enjoy and even encourages them to pick blackberries in the summer.

And just how good has the habitat become? So good that in 2013, Bob received the Jefferson County Soil Conservation District 2013 Conservation Farmer of the Year award and was given an engraved plaque, a Boone and Crockett Classics Series knife, and a sign he proudly displays at his property. While Bob is honored with the award, his humble message is, "I just hope that other landowners will see what we've done here and want to do the same."



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*Planning, hard work and dedication helped transform an ordinary suburban property into a quality home for many early successional wildlife species.*

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