



KDF has gone to the dogs

K-9 wildfire arson units investigate Kentucky fires

By Jennifer L. Turner
Division of Forestry

Chloe and Magic have become real assets when it comes to investigating forest fires in Kentucky, and to say that they work like dogs could not be more accurate. Chloe and Magic are bloodhounds that help the Kentucky Division of Forestry (KDF) track down arsonists. KDF's new Bloodhound Wildland Arson Investigation Program is the result of a partnership with the Kentucky Department of Corrections' Bell County Forestry Camp. Funded through a grant from the U.S. Forest Service, this program has quickly become an effective tool for incident commanders and arson investigators across eastern Kentucky.

The tracking instincts of bloodhounds have been well documented and demonstrated. Whether an arsonist is local or has traveled miles to set a wildfire, most are well within the range of a relentless bloodhound's nose that can track humans as far as 130 miles.

Bloodhounds have 176 times as many olfactory receptor cells as human beings housed inside their characteristically long, slender snout. In fact, the animal's entire anatomy is designed to track scent. The long, swinging ears actually touch the ground and fan residual scent molecules towards the dog's nose as it follows a trail. The thick skin wrinkles on the face and neck capture and concentrate odor molecules in their folds. Even their excessive drool when working serves as an additional odor

trap. Their large, muscular paws and frame give them the strength and endurance needed to track humans across mountainous terrain.

"The K-9s have the ability to survey a variety of terrain in a fire scene in an incredibly short time," says Adam Sloan, an officer with the Kentucky Department of Corrections. "The dogs dramatically increase the investigator's ability to retrieve an accurate reflection of the people present at a fire scene and increase the chances of finding the responsible party."

When KDF receives a call that there is a fire, it dispatches a forest firefighting crew. When possible, a dog team goes with them. Once KDF firefighters control the blaze and locate the origin of the fire, the dog team gets to work. Handlers place a sterile gauze pad on the surface of the fire source for 20 minutes. Then, the gauze is placed in a plastic bag from which the dog sniffs to obtain the 'scent.' The first thing the bloodhound does is smell everyone on the scene to eliminate them from the source. Once it has obtained the scent, the tracking dog takes the officer

from the scene of the fire to the location of the suspect.

Officer Sloan and fellow officer Josh Brock have investigated eight wildland fires with Chloe and Magic since the program began in the fall of 2014.



TOP: Chloe tracks a scent on location. **ABOVE:** Officer Adam Stone with Chloe. Photos by KDF

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LEFT: *Josh Brock and his canine work a fire scene off of Trail 1 at Kentucky Ridge State Forest.*

BELOW: *Bruiser, the first bloodhound used to investigate arson fires, appears on the KDF state vehicles.*

KDF photos

“We had a fire that occurred in Knox County,” said Brock. “We were able to determine the fire’s point of origin—a fence that had been cleared below the black top road. At that point we couldn’t tell if the fire had been started as arson or not.”

Scent swabs were left at the scene for 20 minutes and then Magic went to work. She immediately traced the scent back down the road to a black Mazda truck parked in a shed at a nearby home.

Sammy Faris, a state trooper with the Kentucky State Police (KSP) was first on the scene, followed by Detective Joshua Bunch, an arson investigator for KSP. Bunch questioned several individuals in the area, including the person who had driven the truck. The driver admitted to setting the fire to burn out a fence row. In this particular case, the fire wasn’t arson, but a debris fire that got out of hand. The person who caused the fire was only charged with the cost for putting out the fire and was not arrested.

Though Magic and Chloe have been trained to be professional investigators, to them and other dogs like them the work is just a big, fun game.

“All she’s asking for in return is a pat on the head, somebody to tell her she did a good job,” said Officer Slone.

The costs to state and local resources for fighting wildland fires due to arson is in the millions of dollars, while the damage to forests runs in the tens of millions. Arson is tough to prove, but a bloodhound is a huge asset.

“There is nothing that can equal the scent-ability of the dog that we can take to fire scenes and use,” said Leah MacSwords, director of KDF. “We hope to grow our partnership with the Department of Corrections and Kentucky State Police to find and prosecute wildland arsonists. Our goal is to eliminate wildland arson in the state, and with Magic and Chloe on the job we have one more tool to making that happen.”

