

Best Friends to the Lost

Search and Rescue Dog Teams Should be Activated Sooner in Most Searches



By John Lechliter, Editor in Chief

In March of 2007, a Boy Scout wandered away from his troop and began a 4-day trek through the wilderness in the rugged mountain-country of North Carolina.

Searchers looked frantically for the 12-year-old boy using hundreds of volunteers and such advanced technology as helicopters armed with heat-detection equipment.

On the 4th day, a black 2-year-old Shiloh Shepherd named Gandalf picked up the boy's scent and led searchers to a stream where they found him, disoriented and dehydrated, but alive.

It was a happy ending made possible by the science of canine scent detection, the training of search dog handlers, and search and rescue techniques that bring together disciplines as divergent as geometry and psychology.

▲ Patricia Wolanyk walks her Belgian Malinois shepherd as it sniffs for a trail.

Studies have frequently shown that search dogs are the most effective way to find missing people, whether dead or alive. But too often authorities bring in search dog teams as a last resort, even though in an outdoor rescue situation, hours can make a life-and-death difference.

Saving lives, solving mysteries

Forensic science professionals are well aware of the amazing abilities of well-trained search dogs, which can detect microscopic traces emitted from bones that have been buried for years.

Specialized cadaver dogs have an uncanny ability to detect human remains, whether working on land or water.

Many criminal investigations have broken open when search dogs found even small remnants of murder victims.

But it is in the search for the living that these dogs can make the biggest difference, and they often become the best friend that a lost hiker, missing child, or wandering Alzheimer's patient can have.

The people who train them, and the volunteer search organizations that organize them, want everyone to know that they are available whenever they're needed. It's never too early in a wilderness search to call in search dog teams—in fact, the earlier, the better.

One of the search dog units involved in the search last year for the missing North Carolina Boy Scout was the North Carolina Search And Rescue Dog Association (NCSARDA). The organization is all volunteer and responds to about 75 calls a year for assistance from fire and rescue agencies, emergency management, and law enforcement in North Carolina, South Carolina, Virginia, Tennessee, and Georgia. The Boy Scout was found by a member of NCSARDA's sister unit, which had been called from South Carolina to assist in the search effort.

According to NCSARDA handler Richard Schaffer, there are many volunteer organizations doing similar work all over the country. These teams received a big boost in recognition from the Boy Scout incident because of the media notoriety it received. "Unfortunately," said Schaffer, "searches like this are taking place every day across America, and most receive little or no recognition." He hoped that continued recognition would produce some deserving support of all teams.

Schaffer and his wife, Avery, who is also a search dog handler, are also members of Linville Central Rescue, which is noted for its high-angle and rope rescues in the area near Grandfather Mountain in North Carolina.

Schaffer says many misconceptions exist about search dogs, primarily involving the way they conduct searches.

"People think that you bring a dog to where the person was last seen, the dog sniffs the trail and leads you right to the person," Schaffer said. "But it seldom happens that way."



“In most cases where the dogs are instrumental in locating a subject, it is because of the combined efforts of several dog teams,” he said. “Handlers often brief managers as to where the dogs show ‘interest.’ When several dogs are all showing interest in one area, then managers know to focus their resources. That is often where the subject is found.” He adds emphatically, “It is always about teamwork.”

A search is scientific, employing different types of dogs for different tasks, and using geometry and probability equations. Search handlers are even aware of psychological pattern studies made of people who are lost.

Modern search techniques are designed to make search and rescue efforts as efficient as possible, lessening the time it takes to find a subject and increasing the chances that the person will be found alive.

Dogs are trained to be specialists in certain areas of detection. They include:

Air-Scent Dogs—These are often intelligent, versatile dogs, such as Labrador retrievers, which can roam off-leash and follow air-borne scent. Scent carried in the air is affected by wind currents, and it can pool in low areas. A dog may pick up a scent, lose it, and then find it again in another area. Some air-scenting dogs are trained to follow the scent of a specific human. Others will alert to any human scent they detect. Air-scent dogs can cover large areas quickly because they don’t have their noses to the ground, and they are not slowed by being on leashes. An air-scent dog can cover as much ground more effectively than up to 50 human searchers (Godfrey-Smith, 2004).

Tracking Dogs—Tracking dogs follow more than just human scent. They follow changes in the trail left by a human, such as crushed vegetation. They

are similar to human trackers who can follow a trail by noticing broken branches and flattened blades of grass. They follow the direct path taken by the subject, so they cover less ground more slowly than air-scenting dogs, but they may find a more direct path. Bloodhounds are good tracking dogs. They are handled on a leash, because a bloodhound may tend to wander off in search of a scent and not return.

Cadaver Dogs—Although many search dogs are cross-trained to locate the scent of a cadaver (because during a search it is rarely known with certainty whether a subject is alive or dead), cadaver dogs are specialists at finding human remains. Land cadaver dogs can find remains through air-scenting, and they can even detect buried remains from the scent rising from below the ground. On water, cadaver dogs can find human remains under water or ice from the gases that are produced by decay. It takes a dog that is able to focus for a long time and a handler who understands water current dynamics to make a successful water search (West Jersey K-9 Search and Rescue, 2006).

Search strategies

A handler and a dog are a search dog team. Several teams working together make a unit.

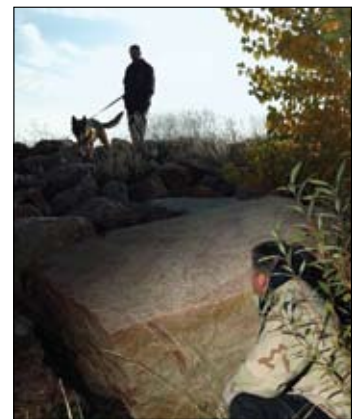
The first rule in canine search and rescue, according to Schaffer, is that there is no “freelancing.” Search dog units will only go to a search if formally requested by the authority in charge of the search. In many jurisdictions, county sheriffs lead search efforts; in others the job is handled by emergency management.

A search dog coordinator will often assist search managers in determining how to deploy the dog teams. Often tracking dogs will be sent to the place where the person was last seen, in order to deter-

◀ Baraon heeds a command from U.S. Capitol Police Sgt. T.J. Williams during a search and rescue training at Sundowners Kennel in Gilroy, California. KRT PHOTOGRAPH BY DAI SUGANO/SAN JOSE MERCURY NEWS



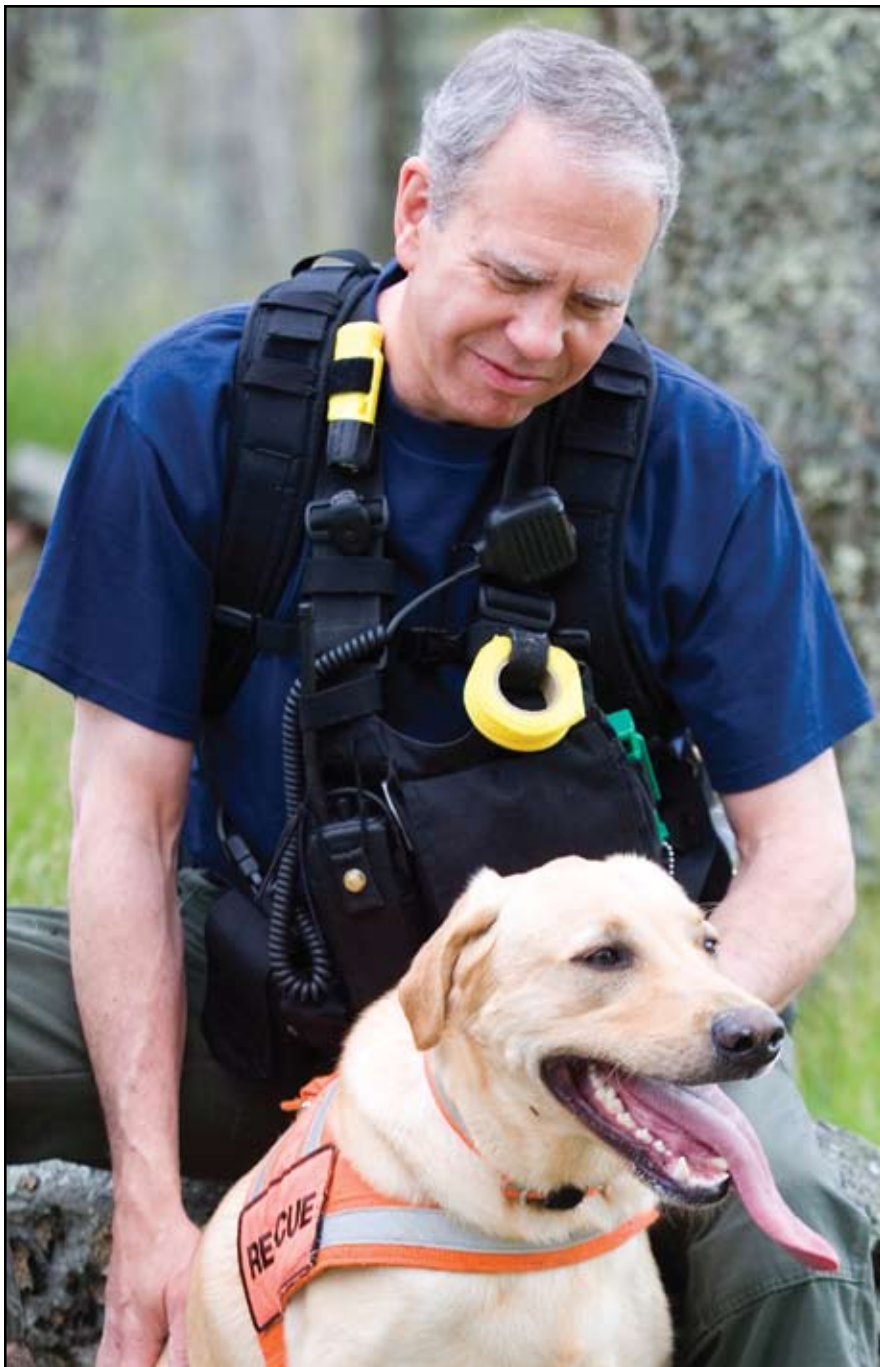
▲ Eagle, a human remains detection dog, signals that he has found remains in an old Kentucky cemetery. BY JANET WORNE/LEXINGTON HERALD-LEADER/MCT



▲ Kilo, a city K-9 officer, with Officer Paul Vandel, closes in on Officer Rod Biechler, right, posing as a ‘decoy’ during an open-field search training exercise. KRT PHOTOGRAPH BY ANDY ROGERS/COLORADO SPRINGS GAZETTE



▲ It is sometimes necessary for search dogs to overcome obstacles in the wilderness. PHOTO COURTESY RICHARD SCHAFFER



▲ Richard Schaffer sits with Rocky, his search dog. Schaffer is a member of the North Carolina Search and Rescue Dog Association (NCSARDA). PHOTO COURTESY RICHARD SCHAFFER

mine the direction of travel. Then faster-moving air-scent dogs can be focused in that direction.

Often, search dog teams are brought in days after a search begins. This is unfortunate for many reasons, primarily because the search dog teams are a very important resource, and every hour counts in determining whether the search returns a live person or recovers a dead body.

Human searchers can also make a dog's task more difficult. Trampling by many people can obscure the trail that a tracking dog would follow. Having other people in the search area can cause a dog to give false alerts, although scent-discriminating dogs trained to follow specific human scents can still work in contaminated environments.

When dogs are called to a search that has been in progress for some time, often the area is divided into sectors, and dogs are deployed to those. The dogs can then assist search managers in knowing where the subjects are not.

When a dog team completes a search of an area, the handler will report to the search coordinator on what the dog found or did not find, and the degree of certainty that the subject is not in the area. The information is analyzed and a determination is made whether or not to place additional resources in the area.

Dog search teams can be effective anytime, day or night. But evening and early morning hours are often the most productive for dogs. Afternoon breezes will push vertically rising scent plumes back toward the ground, and the early morning dew rehydrates dried scent particles, making them easier for a dog to detect (Godfrey-Smith, 2004).

Dedication of handlers

A search dog handler is usually a volunteer who devotes a large amount of time and personal resources because of a love for dogs and a desire to help people in need.

It takes incredible patience to work with a puppy and develop the relationship that will produce success as a search team.

According to NCSARDA President, Denver Holder, a nationally known instructor, "We're not really teaching the dog." They pretty much know what they're doing. It's the handler who gets the training. He points out that, "It takes years for the average handler to learn to read a dog."

NCSARDA handlers go to every search prepared to stay for several days, bringing along supplies for themselves and their dogs. "We don't want to be in a position where someone's loved one is out still out there, and we have to pack up and go home," Schaffer said.

Search dog breeds

The most popular breeds of search dogs are bloodhounds, Labs, shepherds, and herding dogs such as border collies. But a search dog can come in any size and shape. The Schaffers currently work a "high drive" Lab for air-scenting, and a shepherd for tracking. Both are cross-trained in cadaver.

Schaffer said that one member of NCSARDA has two dachshunds, which come in very handy for certain types of searches. For instance, the first place to search when an Alzheimer's patient goes missing is within a nursing home. Schaffer said his Lab would not be a good choice for a nursing home search because of its high energy. But the small dachshunds fit right in.

Breeding search dogs

Patricia Wolanyk and her husband, Gene, breed,

raise, and train search dogs at their Mansfield, Missouri operation, Blackhawkk9.

About 16 years ago, Patricia began working with search dogs as a 17-year-old citizen of Budapest, Hungary. She moved to Missouri about 14 years ago and continued to work with dogs.

Blackhawkk9 raises Belgian Malinois sheep dogs, which Wolanyk says is a very old breed that is a predecessor of German Shepherds. She prefers the breed because it isn't "over-bred" and Belgian Malinois dogs aren't susceptible to the same diseases that are common to German Shepherds.

Blackhawkk9 has breeders in Europe provide puppies, which are ready for transport at around 10 weeks old.

The company raises and trains the dogs until they are ready to be sold at about 18 months old. Police departments and the military are Blackhawkk9's chief clients. Besides search dogs, Blackhawkk9 also trains drug dogs and personal protection dogs.

A lot goes into raising and training a search dog, and they don't come cheap. A dog that has one specialty, such as a drug dog, sells for around \$4,500, and a dog that is cross-trained, such as in drugs and handler protection, sells for about \$6,000.

Many law enforcement departments can't afford a dog, so Blackhawkk9 donates a dog each year to a department in need. Some agencies will hold fundraisers to pay for the purchase of a dog.

Blackhawkk9 works with handlers and keeps close track of each dog that is sold. Patricia said that she is available 24/7 to provide advice and support.

She also keeps track of the dogs because she often becomes personally attached to them. "Leaving them is the hardest part," she said. "We don't keep them in a kennel, they come into the house. We don't treat them as just working dogs."

On the trail

Wolanyk said that she and Gene are also available for searches, which they do as volunteers.

Her most memorable search, she said, was when she and her 3-year-old Doberman tracked down a 2-year-old girl who had wandered off into a forest in Hungary. The girl had gone missing in the morning, and she had found her in the blazing heat of the afternoon.

Most of the searches she works have happy endings, with the discovery of a live person. She purposely tries to avoid searches where

there is a high probability that the subject has died.

"It's emotionally draining to do cadaver searches," she said. "Finding a young child who is not alive is hard." She said it especially affects her because she is a mother and can empathize with what the parents are going through.

The earlier, the better

Law enforcement search coordinators should keep search dogs at the forefront of their resources because they are most effective when called in early.

Most search units welcome the opportunity to practice call-out procedures, so even a false alarm can be good practice. Search teams are far more likely to express relief instead of resentment if the subject is found before the dog teams arrive (Godfrey-Smith, 2004).

"It's better to err on the side of calling in dogs than it is to leave them out," Schaffer said. "Any search manager who leaves dogs out is risking criticism by the family and the public."

Wolanyk agrees that law enforcement agencies are usually too reluctant to call in search dogs. She has found that sometimes dogs are not brought to the scene for days.

"That's unfortunate," she said. "It seems that in Missouri, the dogs are the very last to be brought in. The tracks become contaminated when there are a lot of searchers walking across them."

Getting dogs to a search site should be a search coordinator's top priority, Wolanyk said. "It's still a mystery why they don't think of dogs sooner," she said.

Schaffer said that all law enforcement leaders should be aware of the search dog organizations that serve their area. It's good to stay in contact with leaders of the organizations and to periodically conduct joint training exercises.

Closer contact between law enforcement officers and search dog teams educates the officers on the amazing abilities of the animals,



▲ Avery Schaffer stands with Scout during a wilderness search and rescue mission. PHOTO COURTESY RICHARD SCHAFFER.

and it will likely result in better coordination during actual searches.

Many times lives depend on quick and efficient searches, and search dogs can literally lead the way to a successful search outcome.

References

The Associated Press. (2007). *Boy Scout missing in N.C. found alive*. Retrieved March 25, 2008, from <http://www.msnbc.msn.com/id/17701966/>

Godfrey-Smith, D. (2004). *Effective use of dogs in search management*. Retrieved March 25, 2008, from www.searchdogs.org/articles/Effective%20Use%20of%20Dogs%20in%20Search%20Management.pdf

West Jersey K-9 Search and Rescue. (2006). *Search dog types*. Retrieved March 25, 2008, from <http://www.westjersk9.org/types/index.htm>

Zanoni, M., Morris, A., Messer, M., & Martinez, R. (1998). *Forensic evidence canines: Status, training, and utilization*. Retrieved March 25, 2008, from http://www.csst.org/forensic_evidence_canines.html ■

About the Author



John Lechliter is the editor in chief of *The Forensic Examiner*. He has had a 20-year career as a newspaper editor. He has also worked for the U.S. House of Representatives and was a member of the 1991 Kansas Select Committee on Ethical Conduct in the Kansas Legislature. He has published two history books. Contact him at editor@acfei.com.