

Training a Wildlife Detector Dog By Dave Vesely

Belgian sheepdogs have a long, distinguished history of service that traces back to the origin of the breed. The intelligence, biddability, and physical strength that have shaped the Groenendael into an exceptional herding dog, have made the breed an obvious choice for a wide range of other careers. Belgian sheepdogs performed valiantly during WWI, carrying messages and searching for wounded soldiers on battlefields too dangerous for humans to cross. Today, Belgians can be found on Rocky Mountain glaciers searching for avalanche victims, to nursing homes around the country where their furry faces may be the brightest moment in somebody's day. Wherever there is a need for a good working dog, there will be a Belgian sheepdog ready to take on the task.

During the fall of 2001, we lost a wonderful Groenendael / Border Collie male named Obsidian to cancer. Sid and his sister Lava served for a decade as trusted field assistants during wildlife research projects my wife Joan and I were conducting in the Oregon Coast Range. Sid saved us countless steps over steep ground while we laid out sampling transects. We'd put Sid on a sit-stay at the start of the transect and tie the end of the measuring tape to his collar. There he'd wait while we stretched out a 50-meter interval and placed the next flag. It was just a simple recall to bring Sid up to sit at the next flag, then we'd be off to stretch another interval. The two wolfish, black dogs also offered Joan and I some security when approached by odd strangers at our lonely forest camps. It was Sid and Lava's remarkable qualities that got us intrigued about Belgian sheepdogs.



I was becoming involved in western pond turtle conservation projects by 2001. Populations of the species are in decline in the Willamette Valley of Oregon, partly because of terrestrial predators. Skunks, foxes, raccoons destroy as many as 90% of the turtle nests at some locations. I was one of a number of other biologists searching for nests and protecting them with wire predator enclosures. After many, many tedious hours searching for the camouflaged nests, it occurred to me that a trained dog could probably find turtle nests by scent just as well as any mammalian predator and certainly more efficiently than any human. But it was too late in their lives to start Sid on Lava on such an ambitious project.

When Sid passed on, Joan and I started looking for a rescue or rehome Belgian to adopt. Teri Meredyth explained that there never are too many purebred Belgian sheepdogs in the rescue system so we should be

prepared to wait. It was just a stroke of luck for us that the adoption of a young bitch named Chilko had fallen through during her transport from British Columbia to what was supposed to be her new home. We just happened to be in the right place at the right time to adopt Chilko on the rebound. Joan and I will be forever grateful to Teri, Karyn Cowdrey, Lynne Narez, Natalie Vivian and the others that helped connect us with Chilko.

Having no tracking or search-and-rescue (SAR) experience, I hardly knew where to start training Chilko to detect turtle nests. I certainly didn't know anyone using dogs to find rare wildlife species at that time. But I understood enough about the general principles of dog training to realize that Chilko was only going to stick with the program as long as she found it fun and rewarding. Fortunately for me, Chilko is naturally driven to search. I now know that most dogs have sufficient olfactory capability to be good trackers, but the determination to track varies greatly among dogs. Our earliest exercises were hide-and-seek games in the private woods behind our house. Joan or a friend would go off and hide while I restrained Chilko at the start. Upon release, she would charge off after the person, sometimes following the track, sometimes air-scenting upwind. We extended these off-lead exercises until Chilko could quickly follow a track for more than a kilometer. The intense drive that Chilko showed on the track and her joy at finding the

“victim” made it clear that I had the right dog for the job. I no longer train novice dogs on extended, off-lead searches, but I do attribute Chilko’s high motivation to track, in part, to those early hide-and-seek games.

Detection training progressed by trial-and-error. I acquired a couple of non-native turtles (under a Oregon Dept of Fish and Wildlife permit) to use as search targets, but it was months before I understood how to set up exercises that closely replicated the actual detection work I expected Chilko to do. I read a lot of books about tracking, SAR, and narcotics detection. Chilko and I also began to practice with some friends training their dogs for AKC and Shutzhund tracking tests. Most of our work was done with Chilko in a tracking harness and on lead now. It was the only way I could keep her close enough so that I could watch her and begin to understand how she was tracking.

Western pond turtles sometimes excavate their nests more than 500 meters from the nearest water. To teach Chilko that her job was to follow these tracks from pond to nest, I first used clicker training methods and my captive turtles to reinforce Chilko’s natural inquisitiveness about the strange-looking creatures. Before too long she was easily tracking turtles for hundreds of meters across open fields. Then I began to age the turtle tracks for up to 6 hours and training Chilko under more difficult environmental conditions. She continued to perform reliably.



The last training task to accomplish was to teach Chilko to give me an alert signal when she found a nest. Having some knowledge about pond turtle nesting behavior gave me some clues about how proceed. Female pond turtles fill their bladders with as much water as they can hold before leaving the pond on a nesting excursion. Once they select a site, they release their bladder to soften the soil and make the digging a little easier. I assumed that the wetted nest would smell different than the track and would probably be detectable long after the scent of the track had decayed. But how could I teach Chilko to recognize a nest and let me know what she found? The solution was to hold one of my female training turtles in a small tank with a small amount of pond water for a few hours. She would eventually pee in the tank and I assumed the resulting mix of urine and pond water was similar to the scent of a turtle nest. I again used clicker training to teach Chilko to lay down wherever I poured a small amount of “nest scent” on

the ground. I then increased the difficulty of the task by wandering around large fields, marking numerous spots with nest scent, and returning hours later with Chilko to refine the “nests”. She alerted on the artificial nests consistently, but it was clear she was tracking my original footsteps to the targets. I couldn’t blame her for using whatever clues were available, but she wouldn’t have my track to guide her when we were doing real nest searches.

I won’t begin to describe all the failed methods I used to deploy nest scent onto a training field without carrying it on foot. After a few weeks, I finally solved the problem by taking advantage of a different egg-laying species. I came up with the idea of emptying a chicken egg, refilling it with my liquid nest scent, and resealing the egg with a dab of hot glue. Out at the training field I can lob these “scent bombs” almost 100 feet to create a search target on the ground. I do the entire process wearing latex gloves so as not to contaminate the egg with my own scent and I use brown eggs that don’t provide a high-contrast visual cue. Using area search techniques similar to SAR teams, Chilko became expert at finding and alerting on these artificial nests.

I felt confident enough in Chilko’s detection ability to bring her on search missions during the summer of 2004. Most of our work was at a nesting area known to have a severe predation problem. Chilko found several nests that had already been destroyed, but we never arrived early enough to save the turtle eggs. Then a colleague told me about a nest he had found in the yard of a rural home earlier in the week. We

knew it would give me a good opportunity to test Chilko. When we arrived on site, my friend indicated an area of two or three acres in which the nest was located. Before getting Chilko out of the truck, I released one of my training turtles. This had become an important part of my search protocol because I realized that discovering an unknown nesting area would not happen often, even with a good detector dog. I could ensure that Chilko always had the chance to complete a mission successfully if I brought one of my own captive turtles for her to refind. Chilko got to work immediately once I harnessed her. I led her around the perimeter of a nearby pond hoping to pick up turtle tracks. Nothing. But she was giving indications of something exciting in the air. I just hung on to the lead as Chilko hauled me back into the yard, only for her to find half a hotdog that she gobbled up before I could stop her. Then I noticed a lot of other litter and bits of food scattered about. The property owner explained that more than a hundred people had been in the yard for a barbeque the previous weekend. Working on such a site is challenging for even an experienced tracking dog. Chilko kept to her work, but couldn't just ignore all the food smells. Needless to say, it made reading her indications very difficult. So when she pulled up to grassy spot and gave it a good sniffing, I thought she may have found just another greasy napkin. But as I walked up to correct her, she laid down giving me a clear alert. Between her front feet I saw the characteristic mud plug to a western turtle pond nest! It's not hard to imagine how proud I was of my detector dog.

The following two years have gone well. In 2005, Chilko detected many nests and turtles on land in a wetland near Eugene. I also started training our young dog, Rogue Gaia Kuymal, to detect turtles and he soon proved to be just as capable as Chilko. The dogs didn't find any nests at the area we were contracted to survey in 2006. However, I found out afterwards that an intensive search effort by human volunteers had been conducted a couple of years earlier and the humans didn't find anything either. It's unlikely that turtles have ever used that area for nesting. But even that information can be useful. Pond turtle conservationists can now direct scarce habitat management funds to sites more valuable to the species.

It wasn't too long into Chilko's training program before I became aware of other biologists utilizing canines for detecting rare wildlife species. Dogs have been trained to find endangered panthers in South America, black-footed ferrets in Wyoming, and desert tortoises in Nevada. Detector dogs have even been used onboard research boats to direct scientists to the floating poop of the threatened Atlantic right whale so they can recover tissue samples. The Working Dogs for Conservation Foundation (WD4CF), a non-profit research organization in Montana has been training canine teams for many of these missions. WD4CF and the Oregon Wildlife Institute, the non-profit that Chilko, Rogue, and I work for, are cooperating on a project to train our dogs to detect rare species of Willamette Valley prairie plants this year.



Joan and I love the versatility of Belgian sheepdogs. It seems they can do anything we ask of them. When not working as detector dogs, our pack of three compete in herding events, agility, and obedience trials. I'm also happy to report to members of BSCA that Chilko and Rogue's detection work has gained considerable, positive media attention for the breed. Articles about the two dogs have appeared in newspapers across the country and they have been featured on a TV news magazine and a radio interview broadcast in Seattle. It seems everybody loves a story about dogs helping save threatened species. As a wildlife biologist and companion to three talented Belgian sheepdogs, I couldn't be more proud of the efforts Chilko and Rogue are making to protect Oregon's wildlife.

This story appeared in the Belgian Sheepdog Newsletter, 2007, Vol 57 / Number 3. Published by the Belgian Sheepdog Club of America.