

# Training Tips ..... Desert Searching with Dogs

by Sue Williams

Our dogs can be effective search tools in the desert but we must take certain considerations into account: hazards, equipment, and training and searching techniques. Many hazards await the unprepared desert searcher:



**A deranged electrolyte balance (acute salt loss) causes heat cramps in dogs.** A dog suffering from heat cramps has severe muscle spasms. Intravenous saline is required for an effective treatment making management in the field all but impossible. Pedialyte, diluted Gatorade or a similar sport drink mixture is recommended as a preventative if you think your dog might be subject to condition's leading to heat cramps. **Heat exhaustion** in dogs is an unusual occurrence. The chief symptom is weakness. The best treatment is to have the dog rest in a cool area and to apply cool water to the dog's body. If your dog suffers from heat exhaustion, you must be cautious that you do not push the dog into heat stroke. A dog may appear to be recovered and yet have further complications a few hours later. It is best that any dog suffering from a heat illness be seen by a veterinarian before returning to work. **Heat stroke** is a definite crisis. It occurs when heat builds up in the dog's body to greater than 107 F. The symptoms include staring eyes, vomiting, diarrhea, deep and labored breathing, bright red oral mucous membranes, and a rectal temperature that may be as high as 109.5 F. Treatment requires immediate immersion in cold water. This is a life-threatening condition that will likely result in brain damage even if the dog survive. Prevention is the handler's responsibility.

The **desert air** can greatly affect a dog's ability to search. A dog must have moisture available in its nasal membranes in order for the scent to be carried to the odor receptor sites. The process of sniffing the dry air in the desert dries out the membranes faster than the handler may expect. Dust is often heavy in the desert environment and also dries out the nasal membranes. The handler needs to remember that the dog will need frequent rest stops and water in order to work well. Some searchers carry a mister in order to keep the dog's nose moistened.

The **desert terrain** can be punishing to the dog's feet. The hot sand absorbs 90% of the sun's radiated heat. This hot powder can get in between the dog's toes where its toughened pads offer no protection. The slopes and peaks of the mountains in the desert often are made of very sharp lava flakes. This surface will easily cut a dog's pads. Boots for the dog may help in extreme cases, but the dog must become accustomed to wearing the boots before it can be expected to work in them. The handler must remember that one of the ways dogs lose excess heat is through their feet, and boots may compromise this cooling mechanism.

**Spiny plants** are the rule, not the exception, in the desert. Cholla is the worst plant to encounter. Clumps of cholla easily break off from the plant and stick in the dog. When the dog tries to bite off the clumps, the spines of the cholla will stick in the dog's mouth. The spines of cholla are barbed, similar to a fishhook and are not easily removed. Experienced dogs learn to wait for the handler to remove the cholla. A longer coated dog actually does better around cholla because the barbs are more likely to be caught in the hair rather than in the skin. Cholla is found more in the low Colorado Desert than in the high Mojave Desert. A simple rule of thumb is to not work a dog in areas of heavy cholla. In areas where the cholla is not so prevalent, it may be feasible to work an area search dog, however, working a trailing dog on tether may be difficult because the line may pull cactus clumps into the dog. Yucca plants are often encountered as many species are found throughout the desert. The blade ends of many yuccas are like daggers whose tips may break off and stay embedded in the dog. Small barrel cacti that are hidden from view in the grass are also a hazard.

**Poisonous animals** are another concern of the desert searcher. Rattlesnakes and scorpions require caution. You must be alert for snakes in cool areas during the days and in warm areas at night. Desert snakes are more active in the spring and fall. They tend to disappear when the temperature drops during the winter months. Slopes, brush, and crevices are likely spots to find snakes. The old adage of never putting your hand into a spot you cannot see is a useful motto to follow in the desert. Scorpions are another desert hazard. They are fond of dark places so when in the desert you should always shake out your boots before putting them on after sleeping.

Searching with a dog in the desert requires that you carry some special equipment. You must plan to carry much more water than normal—five quarts is a reasonable compromise between enough water and

too much weight. Squeeze or spray bottles are often used by handlers because of the need to frequently moisten the dog's nasal membranes. Frequent water breaks are required for both dog and handler.

Forceps are handy to pull out cholla clumps. A fork or a hair pick can also be used for this purpose. Expect some resistance when you pull these hooked barbs out of the dog. Leather gloves are very useful for dealing with cactus spines caught in clothing, lines, and you and your dog. Leather gloves also protect you from sharp rocks and heavy brush. All-leather boots are highly recommended—cholla can easily penetrate nylon boots or nylon panels. Short gaiters are helpful in keeping scree and brush out of boots.

The behavior of scent in the desert can be predicted from studies done in other environments. Temperature increase and low humidity causes scent to dissipate faster. An increase in humidity appears to “freshen” scent. Field experience shows that trails are often better as the temperature drops. Damp evening air improves a trail. Trails that have been laid in hot weather with a surface inversion layer will disperse over long distances.

All of these factors influence both where the handler may expect to find scent and the duration of the scent. Scent often collects off desert plants and the dog will work from plant to plant. It is speculated that the moisture in the plant, the plant's oily surface, and the scent drift along an inversion layer may be possible factors that result in this phenomenon. Scent may remain viable in the desert for long periods if the nights are cool and the humidity rises periodically. During the spring when ground fogs often occur, the scent duration may be exceptional. Winter is the rainy season for our local deserts and there is usually good working weather at all times of the day. During the summer, it is usually too hot to work the dog or to even expect scent to be at ground level. Fall is much like the summer with some cooler periods occasionally available that allow work during the day.

Training the dog for desert searching will require some specific techniques. A trailing dog may benefit from being presented with overnight trails initially. You may expect the dog to work off the line more than normal for trails laid during the heat of the day. You should try all types of trails and times of day when setting up your training problems, but do not be discouraged if some of the problems are too hard. You need to keep an open mind, as your dog is telling you where and when he has scent. Your training objective should be to get the experience to know when conditions are limiting scent versus when the victim isn't there. When training in the desert you need to water the dog and rest it more frequently than normal.

When searching in the desert, it is important to analyze the conditions in order to utilize your dog most effectively. Assess the temperature and the terrain to determine how the dog will perform. Let the search boss know if the temperature is too high or the terrain too severe for the dog to work effectively. An evening or night assignment is usually the best. If you are working a trailing dog and a point last seen is accessible, use it to assess scenting conditions. Multiple trailing dog teams are effective when working in the desert. Two teams are better than one when the scent is weak. When the scent is good you can jump trail one team around the other. Dogs of differing heights will often work the scent differently. Multiple teams can be used to verify scent found at trailheads. Using multiple teams at night allows the most efficient use of cooler temperatures.

Efficient use of area search dogs requires few modifications to basic techniques. Because of temperature differentials, you should search the canyons at night and the ridges during the day. Desert thermals mean that chimney-effect of scent is a common occurrence. The scent may travel for a long distance and the dog may not have a continuous scent cone to the victim. The area search dog may range as far as normal due to the harsh conditions prevalent in the desert.