

*Friends of Sierra Rock Art \* BEING SAFE AROUND RATTLESNAKES \**

Bill Drake (Friends of Sierra Rock Art newsletter, June 2014)

Like other members of FSRA, over the years I have spent hundreds of hours in the wilderness. The first time I saw a rattlesnake, which was at a petroglyph site in the high Sierra, I realized that I needed to know more about them in order to feel completely comfortable at remote settings. For the next year I did a considerable amount of research on the reptiles and then wrote an article about them for Sierra Heritage magazine as well as a handout for Forest Service archaeologists. So others will feel more at ease hiking in areas snakes inhabit, this article will share some of what I learned.

The Western Rattlesnake inhabits a large portion of the western U.S., including most of California. Its main subspecies in northern California is the Western Pacific Rattlesnake. In some parts of the Sierra, since they hibernate for the winter, they are most active in the spring when they come out of hibernation. The next most active time in the Sierra range is usually in the fall when they are seeking more food to build up fat for the next period of reclusion.

Where they are found has a lot to do with their body temperature. Temperature permitting, they can be found any time, day or night. During summer they tend to be especially active at night. During the day, a snake may be in the shade of a bush or rock, waiting for an unsuspecting rabbit, lizard, or other food source. On hot days they may rest in a mammal's hole or a shady spot. If the ground is cool, and the air temperature at ground level is between about 55 and 75 degrees, they may bask in the sun, sheltered from a cool breeze. Western Rattlesnakes like shady bushes and rocky areas, such as ledges and outcroppings.

The most reassuring thing to know is that in our area, as a general rule, it is rare to see a rattlesnake and very rare to be bitten by one. Rattlesnakes almost always avoid contact with people by lying still or retreating. I have heard of one or two aggressive rattlesnakes in our region but they were rare exceptions. The only time a rattlesnake tried to chase after me was after I accidentally ran over it with my car on a dirt road near rock art sites in Bishop, California, and I stopped to see how it was doing. If threatened, they often coil and shake their rattles to warn intruders, although you can be bitten without hearing such a warning. And while snake bites can be very painful and severely damage your body tissue, they are almost never fatal. A California Dept. of Fish & Game website states that no venom is injected in about 25% of rattlesnake bites. The Centers for Disease Control estimates that only 5 people die from bites by all types of venomous snakes in the United States per year.

Many snake bites relate to bad behavior on the part of humans. In one Los Angeles County study, three-quarters of rattlesnake bites were in young adult males who had been drinking and teasing snakes. A poison information specialist at U.C. Davis Medical Center has concluded, "The easiest way to get bitten by a rattlesnake is by being an idiot!"

Keep in mind that rattlesnakes, at top speed, can only crawl about as fast as a human being can walk. A rattlesnake can bite from any position, lying flat or coiled. They can also coil and strike in an instant. From a coiled position, however, they rarely strike more than one-half to three-quarters of their length and generally do not strike higher than one-and-one-half feet above the surface they are on.

Aside from idiotic behavior, bites most often occur when a person surprises a rattlesnake, causing it to react. This often happens when the person puts a hand or foot in an area they cannot see. This can include, for

example, stepping over a log or large rock without looking on the other side, or putting a hand on a ledge, or inside a woodpile at home, that is not or can not be inspected beforehand. Hikers walking past brush where a snake is resting or hiding can also startle a snake.

While snakes can feel ground vibrations, they do not appear to respond to sound waves. Singing operas while hiking may scare other hikers away but will not affect snakes.

If you hear a rattler rattling, stand still until you can determine where it is. Move slowly out of the snake's range then get quickly away from the immediate area once you are sure there is not another rattler in the direction you will be going.

If you are bitten by a venomous snake, a companion should treat you for shock. Try to keep the affected area immobilized and below heart level. If a foot is involved, minimize its motion as much as possible. Get medical help as soon as you can. Call a hospital in advance so they can prepare for your visit. They will give you an anti-venom to counteract the poison. Walking or other activity by the victim increases the metabolic rate, which can cause the venom to spread and be absorbed much quicker. Excessive warmth also has this effect. If the victim must walk out, he/she should walk slowly and rest every five minutes.

If you are more than a couple of hours from a hospital, you might use an extraction kit (Sawyer's Extractor vacuum pump kit is recommended), which may suck out up to 30% of the venom if used right away. The longer one waits to use the kit the less effective it will be. If you are less than a couple of hours from a hospital, forget extraction and get there as soon as you can.

The old suggestions to use a constriction band or tourniquet, to use a razor knife to make an incision at or near the bite, to suck out the poison with your mouth, to put ice on the wound, or to give alcohol or stimulants to the victim, are all very bad ideas. Do not give the victim aspirin which can make it harder for the blood to coagulate.

When hiking in the wilderness, it is recommended that you have one or more companions. You should also have a plan of action in the case of snakebite or another emergency. You should know where the nearest emergency facility is and what phone number to call for help. If you are several hours from medical help, carry a Sawyer's Extractor Pump kit and know how to use it.

Remember that rattlesnakes will try to avoid or warn you, their striking distance is not very long, and that you can easily out pace them. Be alert when you are hiking and always be aware of where you put your feet and hands. An often quoted rule of advice is that "the only dangerous rattlesnake is the one you don't see."