

Animal Communication

By Dr. Leonard Lee Rue III

Until we humans understand animal communication, we will not really understand the animals. Most animals make a much larger variety of sounds than we are aware of. In addition to the actual auditory communication, animals also send out visual and olfactory messages. In fact, the chemical messages that animals send out may be far more important than the audible message with which we are most familiar.

With all communication, there is always a sender and one or more receivers. Often the message is not intended for just one particular receiver, it is sent out as a message for all who receive it; sort of a "To whom it may concern" message.

Some animal sounds are made at such high or low frequencies that they cannot be heard by the human ear, but have been recorded by high-tech machines. Many animals that we think we know well make sounds that we don't know well. We know about the howl of a wolf, the scream of a cougar, the trumpeting of an elephant, the bugling of an elk, etc. However, we are now finding that the tone, pitch, frequency, etc. of each of these calls mean many different things.

Scientists have discovered that the alarm chirp of a prairie dog is done at a different speed, duration and pitch to denote the presence of a man, coyote, fox, hawk or snake, etc. By making recordings of the calls, the scientists found that each type of danger causes the prairie dogs to consistently give a slight variation of the alarm call. This proves that the prairie dog's vocabulary is much larger than previously known.

Deer snort and stamp their feet, beaver slap their tails upon the water, rabbits thump their feet, foxes squall, wolves howl and squirrels chirp and chatter. These are all means of communication that can be heard and sometimes felt. They are messages that are instantly given, perhaps heard or felt, and the message is gone.

Deer flair their tails, dominant wolves carry their tails high, elk and moose give threat signs with their antlers. These are all visual messages that are given, but the receiver and sender must be able to see one another.

We know from scientific testing that dogs have a sense of smell, thousands of times keener than our own and many wild animals have a sense of smell as keen as that of a dog. Most animals have a keener sense of smell than we humans do because they depend upon that sense for survival. We do not. Because their sense of smell is so sharp, and the fact that for many animals, it is their most developed sense of all, it should come as no surprise to learn that animals live in a world of scent. Odor is given off as chemical molecules from an organic source. The advantage to having a chemical language is that, although the sender and receiver may be in actual contact, they don't have to be.

Chemical signals can be received minutes, hours, days or even a week after it was given, according to the type of scent that was given off and the weather conditions. Hot, dry air causes the scent molecules to rise and dissipate. Rain washes the scent molecules to the earth and dissipates them. The most ideal scenting condition is moist air with a temperature between 60 to 70 degrees Fahrenheit. Even we humans are influenced more by scent than most of us realize. Our sense of smell is directly linked to the area of the brain that stores memory.

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Advertise	To make known.
Aerial	Up in the air.
Alert	Intensely aware of everything nearby.
Auditory	Sounds that are heard.
Bellowing	A roared call.
Bonding	Building affection between wildlife, such as between mates or a mother and her young.
Breeding Season	Each species has a certain time of the year in which they breed so that their young will be born or hatch in the most favorable time.
Bugling	The loud call of a bull elk.
Burrow	A home dug in the earth.
Castor Paddy	A small pile of mud built up by beavers on which they deposit castoreum.
Castoreum	A yellow, oily scent given off by the beaver's two castor glands, also used by humans as a base for perfume.
Challenging	Offering to fight.
Defend	To protect.
Den	A home, often a burrow in the earth or in a tree.
Glands	Small sacs in the body that hold scent which is used in giving messages to other animals.
Hard Stare	A posture of warning given by a dominant animal to one of lesser rank.
Harem	A collection of females controlled and protected by one male against another male.
Hesitate	To pause.
Hooking	Pulling on branches with antlers or horns.
Impending	An action about to happen.
Instinctive	An action that can be taken without thinking, learning or being taught.
Invaded	To go into another animal or bird's territory.

Materialize	Appear suddenly.
Perimeter	The outside edge of a creature's territory.
Posturing	Visual body language used to warn of danger.
Potential	Unused ability.
Predator	A creature that eats another creature.
Preorbital Gland	Scent glands located in front of the eye.
Rival	Someone who is trying to get the same thing you are.
Rump	The rear, lower portion of a creature's body, buttocks.
Rutting Season	The particular time of the year when certain species of animals breed.
Scrape	A depression in the earth pawed by an animal's feet.
Squalling	A long, drawn-out call.
Suspense	A breath-holding moment.
Tarsal	An area located on the ankle.
Telltale	Evidence of something seen.
Territory	An area claimed by an animal or bird, for which it will fight to keep away others of its own species.
Thermals	Columns of air that rise as the earth is warmed by the sun.
Threat	A warning of danger.
Trilling	A vibrating call.
Ventriloquistic	A sound whose source cannot be discovered.
Venture	Going out.
Vibrations	The results of motion that can be felt and seen.
Vicinity	A near area.
Visual	That, which is seen.