Soft-Spoken Sentries of the Savanna By Patricia Hutchison

It is a raucous day on the Savanna. Hippos are roaring, elephants are trumpeting, and giraffes are… doing what? They are performing their typical silent surveillance. But are they really silent? Research has shown that they are not.

Giraffes are social creatures. They are also very vulnerable. Because of their height, and their long, spindly legs, they are most defenseless when they are drinking. Assuming an extremely awkward position, spreading their legs and arching their crane-like necks at the watering hole, giraffes are susceptible to attack by lions and crocodiles. Like all mammals, they must drink in order to survive; so how do they manage to come away unharmed? Giraffes watch out for each other, communicating any approaching danger.

Giraffes were once considered the tall, silent type. However, studies have shown that they do, in fact make noise. Scientists now believe that giraffes, like some other mammals, communicate using infrasound. Whales, rhinos, and alligators also use infrasound to convey messages to other members of their species.

Infrasound can travel over miles and through solid objects. Because they possess a very low frequency, these sounds cannot be heard by the human ear. However, scientists have found a way to make it possible for humans to perceive sounds produced at infrasonic frequencies that would not normally be heard by our ears. Using this technology, a study was conducted at Riverbanks Zoo in South Carolina, in order to study the giraffes' mode of communication.

During the study, scientists separated a group of giraffes which were normally kept together. They observed that one group of giraffes would stretch their necks and put their chins up in the air, apparently "talking." The other group of giraffes would then turn their heads and point their ears, as if they were listening. Special equipment was set up to capture the noises the scientists believed were being produced.

Infrasonic sound frequencies produced by the giraffes were gathered using sensitive microphones. The frequencies were then transferred to a computer which allowed scientists to see the sound waves on a screen. A special program amplified the sounds, making it possible for humans to hear them. When listening through this equipment, the scientists heard the infrasonic giraffe noises, which resemble strong, low drum beats. They were able to unlock the mystery of giraffe communication.

Giraffes use these sounds to warn their companions of danger. While other giraffes in the heard are bent down to drink, the guards on duty crane their long necks, surveying for perils far off in the distance. When an enemy is spotted, they communicate the threat using infrasound. Scientists believe that the lookout forces large volumes of air

up its long trachea and out its small larynx. This creates a giant puff of air, producing a low sound that is picked up by the defenseless drinkers quenching their thirst. Having been warned, the giraffes are able to use their long legs to gallop away at speeds of up to thirty-five miles per hour.

This behavior, in turn, gives warning to other defenseless mammals. Today on the savanna, zebras, okapis, antelope, and other animals remain in close proximity to the giraffes. They keep close watch on their behavior. When others see the giraffes running, they are warned that danger is imminent, and they are also able to flee to safety. Lions that are prowling at the waterhole have been exposed by the tall, quiet lookouts. The thundering of hooves can be heard as the animals scatter in all directions. The giraffes have done their job as the soft-spoken sentries of the savanna.