

## Elephants and the Elephant Listening Project



Katy Payne is a scientist who studies elephants. She was the first scientist to find out that elephants make infrasounds—sounds which are below the frequency range we humans can hear. She was in an elephant cage when she felt throbbing in her ears and in the air. Was this throbbing some kind of sound? They recorded the sounds for a month. At first the scientists heard nothing when they listened to the recordings, but then they sped them up—they increase the frequency of the sound three times—the rumbles emerged.

Katy is one of the scientists who works on The Elephant Listening Project at Cornell University in New York. She, Andrea Turkalo, Peter Wrege and Liz Rowland are trying to understand elephant vocalizations. They observe African forest elephants, not the elephants of the savanna, but the behavior and sound of the forest elephants can be of interest.

Andrea has been observing forest elephants in the wild and recording their behavior. She observes a clearing by a watering hole in the Dzanga Clearing, on the Congo Basin between the Central African Republic and Cameroon. The clearing is equipped with sound recorders. When the elephant behaviors are paired with the recordings they make, the scientists look for patterns to tell what kind of communication is taking place. They are trying to put together a “dictionary” of elephant sounds.

Elephants come to the Dzanga Clearing to get minerals. They play in the clearing, adults and children. She has noticed that the females and their children stay together for long periods of time. So most of the elephants that visit the clearing are females and their youngsters. Bulls meet up with their families sometimes, and they speak to each other. Andrea can recognize the sound some of the families make when they say hello, but the dictionary doesn't have many entries yet.

The scientists at the Elephant Listening Project have identified the low rumbles that allow groups to stay in contact. The infrasound are useful in finding each other in the dense forests. The sounds carry three or four kilometers—more than a mile—perhaps even more. They have found calls that elephants make when they complain. They can recognize the cries of newborn calves. They can also recognize the sounds males make when they are ready to mate.

It is well documented that elephants are emotional. Turkalo recorded an occurrence where a baby died and the rest of the elephants cried. They poked the baby, trying to make it live again. When it became obvious the baby was dead, the elephants made a procession by the baby's body. For three or four days the procession filed by the baby's body. They'd touch the baby or smell it. They'd vocalize.

Payne, Turkalo and their colleagues listen to the elephants to understand them well enough to try to protect them from poachers who kill them for their ivory.

More information on The Elephant Listening Project: <http://www.birds.cornell.edu/brp/elephant/>