Focus on...:

Did You Know?...

A living relic, the black rhinoceros is one of nature's most interesting and sophisticated animals, says *Daphne Sheldrick*.

AVING BEEN CALLED upon in my time to handupon in my ume rear eight rhino orphans, three of them from newborn, I know black rhinos well, yet hardly a day passes that I am not astonished by these ancient animals. Being a foster mother to any wild animal is a most enlightening experience. It affords a unique opportunity to learn and understand the animal in a very intimate way; to observe and study behaviour patterns and to fathom an ancient and complex mind. And, as time passes, so a window opens to reveal the inside story of the animal—in the case of the rhino, the inside story of an almost prehistoric creature that has been unchanged for millions of years.

All wild animals, save the primates, amongst whom we are classified, have a genetic memory termed instinct; that mysterious sixth sense denied us humans. It is instinct that dictates a lot of their actions, particularly matters important to survival, and instinct is particularly strong in the more ancient species such as rhinos. Theirs is a hidden and complex world of scent and chemistry; their social system is complex, their body language and vocalisations subtle and their very rigid territoriality often confusing.

Most people mistakenly look upon rhinos as rather bad-tempered misfits of the animal kingdom, an animal best avoided at all costs, whom noone would really miss should it disappear from the face of the earth, and which perhaps is even overdue in being phased out, as were those first animals—the dinosaurs. In fact, rhinos are one of the most maligned and misunderstood creatures. Their ferocity stems only from persecution, attack being their instinctive means of self-defence. Rhinos respond to kindness quicker than any other animal, and a wildcaught adult can be tamed within just a few days simply by kindness. Once a rhino understands that you are a friend, and not a foe you have nothing to fear providing you, in turn, comprehend the role and significance of instinct and are prepared for the animal to switch rapidly into 'auto-mode' should it become startled and feel threatened for any reason. At such times a rhino moves quickly and with no conscious control over its instinctive reactions—at those times it is wise to make oneself as scarce as possible, as quickly as possible.



"Once a rhino understands you are a friend, you have nothing to fear."

Rhinos have myopic vision, but this is no handicap—they simply don't need their eyes in view of the sophistication of their other senses. For instance, they have phenomenal hearing. Our orphaned rhinos can detect the approach of another rhino half an hour before the animal actually becomes visible. A rhino's 'come here' call to a loved one is no more than a soft exhalation of breath that is barely audible but which obviously carries far and is used mostly between mother and young. The rhino repertoire of louder sounds is equally impressive—long drawn-out snorts resembling a nose blow signify alarm, a mewing noise like a kitten is a 'wanting' sound, and a loud terrifying roar more akin to voice of a lion indicates anger and a readiness for combat.

Chemistry plays probably the most significant role within a rhino's life. By kicking their dung with their hind feet, they demarcate boundaries and territory and leave their specific scent trail on the ground for others to know where they have gone. By contributing their dung to communal dung piles, they alert all others within the community to their presence and establish their right to 'belong'. By squirting their urine against shrubs and bushes they advertise their rank and status through hormones. Females indicate their estrous cycles and males alert oth-

ers to their dominance and rank which are important parameters for breeding.

The memory of a rhino is also phenomenal. Having carefully and meticulously explored its surroundings only once, a new orphan can then take it at a gallop and never collide with any obstacle, moving swiftly and surely, simply by memory and scent.

The role of rhinos within the environment is very important. The black rhino is essentially a browser, feeding mainly on shrubs, legumes, and noxious weeds, many of which are poisonous to other animals. By cleanly clipping larger branches and twigs, they promote fresh soft shoots that sustain a large number and variety of other herbivores during the dry seasons. By ridding the pastures of toxic weeds, they inhibit their spread, thereby improving grazing for others. They are a highly successful species in terms of nature, moderate in their food requirements, modest in their need for space. Were it not for the insane demand for their horn in the Far and Middle East, and indeed for all their bodily components which are enmeshed in myth and superstition, rhinos today would be as numerous as they were when the world was new.

Only man's insatiable greed has pushed these wonderful animals to the very brink of extinction, so that today they teeter on the very edge of annihilation. And if they do go, the world will be the poorer for their passing; one of the many unforgivable sins which must be laid firmly at the feet of mankind.

Mysterious Dependents of the Black Rhino

Through millennia, in conjunction with this ancient species, parasites have evolved that are specific to rhinos. For instance, the tiny flies known as *Lyperosia* that breed in rhinos' communal dung piles and which swarm and alight on the animal in soft clouds, particularly during the dry seasons.

Another is the *Gyrostigma*. Resembling a wasp, *Gyrostigma* is a beautiful metallic blue fly with scarlet legs and head stripe, but devoid of mouth parts. Once this fly has hatched from a pupa in the ground it must find a living rhino within its five-day life in order to begin its mysterious life-cycle anew.

Even today, very little is known about this quaint and beautiful insect, not only because its life is so short and it is so easily mistaken for a wasp, but also because it is crepuscular and elusive, active only at dawn and at dusk.

Most of the *Gyrostigma's* life-cycle is spent in the form of a large and rather revolting looking beetle-like 'bot' that shares the rhino's food resource actually inside its stomach in a seemingly symbiotic relationship. My late husband, David Sheldrick, founder warden of Kenya's giant Tsavo East National Park, was one of the first people to successfully hatch a *Gyrostigma* fly from a bot passed in the dung of a rhino.

Many rhinos harbour large infestations of bots which might possibly become parasitic should the animal be in poor physical condition. No-one knows how long a bot remains in the stomach of the rhino, but eventually it is passed in the dung to pupate in the ground with the first rains, but only if the rains are going to be substantial and conditions promise to be just right—otherwise the bots simply stay put until the next season, sometimes appearing briefly at the anal orifice to take a look around and, if conditions don't suit them, hurrying back in!

The eggs of the *Gyrostigma* fly, which are minute, oblong-shaped and white, are laid in the soft striated indentations of the skin around the neck and head, and after some six days hatch into tiny 'inchworms' no longer than the comma of a typewriter. At first it was assumed that these worked their way along to either the rhino's nose or mouth, but, through observing them on our orphans, we discovered that they simply bore straight through the hide and from there somehow end up in the stomach.

Daphne Sheldrick

Daphne Sheldrick was profiled in Swara 19:2. She runs the David Sheldrick Wildlife Trust, P.O. Box 15555, Nairobi.



