



THE DAVID SHELDRIK WILDLIFE TRUST
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THE ELEPHANT ORPHANS

The Infant Nursery Stage

When hand-rearing wild animals it is important to understand their natural habits. Gregarious animals must be given company; lone species seclusion and a place to hide. Confining wild animals (except when very young) frustrates instinct, stifles stimulation, results in boredom and turns an animal psychotic and dangerous. Wild babies need freedom and exposure to a natural environment in order for innate instincts to become honed and enable them to make their way back into the wild system in their own time. In the meantime they need a secure base to which they can always return if insecure or threatened. No human foster-parent can instruct an animal in the social lessons that influence rank and status, or the boundaries of acceptable behaviour amongst their wild kin, where chemistry, telepathy and inherited memory and knowledge all contribute towards survival and a natural wild life.

Daphne Sheldrick has been rearing and rehabilitating orphans of misfortune for most of her life and in her time has reared and successfully returned to the wild when grown most African wild species except the Big Cats. However, the rearing of the infant elephants has been her greatest challenge and her greatest triumph. Widow of the late David Sheldrick, founder Warden of Kenya's giant Tsavo East National Park, it took her 28 years of trial and error to perfect both the milk formula and the complex husbandry which together are essential to the successful rearing of the milk dependent orphaned elephants, i.e. those younger than 2 years of age. No elephant orphaned younger than two years of age can survive without milk, and very few lactating mothers with a calf at foot will have milk in sufficient quantity to be able to suckle more than one calf, although this has occasionally been known. The David Sheldrick Wildlife Trust is first to

successfully hand-rear newborn elephant orphans and successfully return them to the wild elephant community when grown.

A weak base of Wyeth Laboratories' SMA Goldcap or S. 26 comprised of well emulsified vegetable oils fortified with additional Calcium/Magnesium and Vitamin C, along with intense hands on husbandry, and a human "family" of Keepers to replace the lost elephant one, has brought new hope and life to over 50 infant elephants that would otherwise have faced certain death. The key to success has been an in-depth knowledge of elephant psychology, coupled with knowledge of elephant behaviour. For her work in this field Daphne Sheldrick has been awarded an Honorary Doctorate in Veterinary Science by Glasgow University, honoured with an M.B.E. by the Queen, elevated to the Global 500 Roll of Honour by U.N.E.P., made a Moran of the Burning Spear by the Kenya Government, and won the BBC's Lifetime Achievement Award in 2002.

To a baby elephant it is **the family** that is all important. During the first fragile year of infancy, when a calf is entirely milk dependent, a replacement human "family" must be with the calf at all times, even during the night, when a Keeper will sleep next to the calf, handling the animal with gentle patience, exuding fondness and love and feeding it on demand, little and often. All these are vital ingredients to success, and what a baby elephant would enjoy from its own elephant family. There must be enough Keepers in number to represent a "family" and to avoid a calf becoming too attached to any one person and pining when that particular person has to take time off. Psychological depression and distress can trigger serious physical problems, so it is essential to keep the calf as happy as possible.

The babies are always severely traumatized on arrival, often having witnessed the violent massacre of their elephant family by poachers for ivory, or separated from the herd through some other human related misfortune. Unless newborn and therefore lacking comprehension, they inevitably enter a period of deep grieving for their lost loved ones, something that can last for months. During this critical phase, survival hangs precariously in the balance and only very intensive 24 hour care, coupled with sincere emotional input can tip the balance. Even so, not all calves can be persuaded to make the effort to try to live. Some who have arrived in terrible condition have survived, whilst others who have arrived in relatively good condition, have perished, something that is influenced by the personality and willpower of each individual.

Infant elephants are difficult feeders. The tip of the trunk must feel comfortable before the calf will suckle, resting against something that feels a little like mother, such as a hung blanket. Gradually a calf will transfer the trunk to the neck, face or armpit of the Keeper, but until it does endless patience is needed to try and encourage the calf to take milk in sufficient quantity to sustain life and eventually begin to thrive. Temperature is also important, since baby elephants are essentially fragile and succumb easily to pneumonia. In the wild, a baby elephant would be sheltered from the elements by being surrounded by the elephant family, protected from the sun underneath a family member for the first year of life. In an artificial situation they must be protected by blankets when cold, rainwear when it is wet, and sunscreen and an umbrella when exposed to sun during early infancy.

The first molars erupt between 1 and 4 months. Teething can trigger fever and diarrhea which can be life threatening, plunging a calf into rapid physical decline. At such times rehydration salts must be administered and it helps also to mix the powdered milk with water in which rice has been boiled. Homeopathic remedies are used before resorting to an antibiotic, but if an antibiotic becomes necessary, those that are sulphur based are better tolerated if given orally. All new orphans undergo a course of injectible broad spectrum anti-biotic upon arrival in the Nursery to forestall problems resulting from an invariably depressed immune system due to trauma and shock.

Like human children, baby Elephants need toys and stimulation. Highly intelligent, with a giant memory, they duplicate humans in emotion, as well as development and longevity. During infancy distractions of all sorts must be built into the daily routine - walks in varied surroundings, access to Nature's toys such as sticks and stones, as well as artificial playthings such as rubber tubes and balls. Cause for celebration is when a baby elephant plays for the first time, because only then can one be sure of a reasonable chance of success. An elephant will only thrive **if it is happy**.

As in human children, discipline is necessary to establish boundaries of acceptable behaviour around humans, **but** this must be meted out carefully and with sensitivity only after the calf has settled down and understands tone of voice and the accusing wagging of a finger. Later on, like human children, a baby

elephant will want to test the boundaries, and then it is time to reinforce a reprimand with a small cattle prod powered by two torch cells, which imparts an alien sensation, but not pain as such. However, it is **essential** to make a big show of forgiveness later, so that the calf understands that it was punished for wrongdoing but that it is still loved. Failure to do this will lead to a grudge and dislike. ***With elephants, one reaps what one sows, and how the animal will react in the company of humans when grown is dependent upon how it has been handled and treated by humans when young. It is extremely important never ever to feed an orphaned elephant tidbits by hand, for this will result in bad habits that can cost an elephant its life around human habitation when grown.***

The second milk dependent year is a weaning year, when both the quantity and frequency of milk feeds is gradually reduced as the calf ingests growing quantities of vegetation. Elephants need a varied diet, but plant selection is instinctive, and not something that has to be taught.

Age Progression:- It must be understood that at any age an elephant duplicates its human counterpart in terms of age progression and development. For two years an elephant can be classified as an infant; as a child until the age of 10; a teenager between 10 and 20 years; a young adult in its twenties; mature in its thirties and forties, and becoming elderly by the age of fifty. Longevity duplicates us humans as well, influenced one way or the other by factors such as stress, diet, clean air and water etc., but given protection and favourable circumstances, an elephant should normally live into its seventies and even eighties, as do humans.

The Reintroduction Process

If the Nursery inmates are doing well at the age of 1 year, they are transferred to Tsavo National Park (along with their human family), where they are welcomed and integrated into the still dependent group of larger orphans that have preceded them through the Nursery. There they begin the gradual process of reintegration back into the wild elephant community, with days spent walking with the Keepers far and wide in the bush, encountering the scent of wild herds, actually meeting wild elephants, spending time in amongst them, and rejoining their Keepers to return to communal Night Stockade at night as protection against predators whilst still vulnerable. Elephants are highly social animals, and all elephants are automatically fond of the young. Consequently they are one of the easiest species to return to the wild, **providing** the wild herds have not been severely harassed and traumatized by humans, when human scent on an orphan might trigger antagonism and isolation. The older orphans in Tsavo always welcome any newcomers, and escort the youngsters into wild herds already known to them in their daily outings. **It is very important that the young elephants are psychologically stable, because if not, the wild herds will not want them. The key to this is the replacement family during infancy and 24 hour contact with their Keepers.**

Elephants communicate with a spoken language that they need to learn from other elephants, and a body language that is instinctive at birth. The younger the orphans can be exposed to older elephants, the easier the learning and transition back into the wild system will be. Furthermore, acceptable behaviour must be taught, initially by the human family during the Nursery period, but then by the older orphans still dependent in Tsavo, and ultimately by the wild community. Elephants are born with knowledge important to survival as well as a genetic memory, both of which can only be honed by exposure to a wild situation. All these factors are reasons to return the infant elephants to Tsavo as young as feasibly possible, and to complete the second milk dependent weaning period amongst older elephants, with exposure to the wild community.

The length of time it will take for an orphaned elephant to become a “wild” elephant, comfortable amongst, and a member of, the wild community is, however, influenced by various factors.

1. At what age the elephant was orphaned, and how well it can recollect its elephant family and other elephants. Those orphaned younger than the age of 6 weeks will have no recollection of their mother or family, and, in fact, are usually easier to rear since they are spared the trauma of grieving.
2. The personality of each individual, which, just like us humans, differs. Some elephants are outgoing, independent and adventurous; others timid, shy and retiring and therefore more dependent upon their human family.

3. Friends. Just like human children, the elephants are more comfortable when they can count on the backing of their friends during exposure to the unknown. Those that have been raised alone in the Nursery, without the company of others, feel more vulnerable and insecure than those who are bonded by friendships forged when young, and travel as a group.

Gradually, however, the orphans begin to fraternize more and more with other elephants and eventually find the company of other elephants more stimulating than that of humans. Each orphan decides when to leave the human family and become a “wild: elephant again. The choice of when rests with each and every individual. They are never “tipped out” – just introduced gradually through access and exposure. Once “wild” many still keep in touch, returning when and if they choose to do so to visit their human and orphaned elephant family, or when in need of assistance. **An elephant never forgets, and each orphan will remember and love those particular individuals who comprised its human and elephant family during infancy and adolescence.** This love does not extend to all humans, but encompasses only specific individuals who represented the family, and who will be recognized instantly years later. An illustration of this is when “Eleanor: aged 42 instantly recognized the Keeper who cared for her when she was only 5 and whom she knew after a separation of 37 years.

The Females:- It is very normal for the older female orphans to choose to remain behind in order to care for the smaller calves, for female elephants that have been deprived of their natural family (to whom they would have bonded for life) are desperate to try and establish another. Female elephants, irrespective of age, are extremely maternal and protective of the young, a trait that manifests itself even in early infancy in the Nursery. Females long for a family, and orphans who have lost their natural family and who grow up as self appointed “Matriarchs” of the orphaned group often resort to trying to entice young babies away from their rightful mothers, something that is not popular with the wild Matriarchs and breeds resentment. In a perfect world, where families are intact for life, abduction is probably very rare, but amongst orphans whose family bonds are not as strong, it is a common occurrence. During interaction with the wild herds, it is interesting to note that the wild mothers will not allow close contact between their very young and our older females, although the smaller calves who pose no threat are allowed to play with a wild infant. The older females may interact with the herd, but confine their attentions only to their age-mates. Bullying of the young by older calves is not tolerated within elephant society, and the lesson that calves must confine their play to like age-mates is taught young to our orphans by the wild Matriarchs. Hierarchy in both bulls and cows is usually governed by age, with older calves dominant to those younger.

For us, the ultimate destiny of the large group of orphaned female elephants that are still with us, remains an unknown learning curve, because never before has anyone had to cope with so many young elephants under the care of older self appointed “Matriarchs” who have been hand-reared by humans, with juniors taking on the role of “Nannies”. It is the Matriarchs and Nannies who are responsible for the wellbeing and safety of the herd. They keep the peace, instill discipline to the unruly, and opt to care for any young newcomers. Previously, the orphaned females that survived during the fifties, sixties and early seventies were all orphaned much older than two years of age, and remembering their elephant families clearly, became absorbed into wild units when still young. The current situation amongst the Tsavo orphaned group is unique, comprised as it is of elephants reared from early infancy, so the attachment to the human family is strong.

The Bulls:- Young bulls naturally remain with their natal family until puberty, and are not bonded into the family for life, as are females. It is very normal for young bulls to leave their female family and travel with bull age-mate friends independently as they grow up. They also develop a “hero-worship” on high ranking bulls within elephant society, whom they seek out and emulate, at the same time learning lessons about rank and status vital to survival in such powerful animals. Bull elephants fight seriously only very seldom, for Nature limits conflict for obvious reasons. Hence serious conflict over an estrous female will only take place when bulls are evenly matched in age and therefore rank, and then tusk size and body weight is a contributory factor. Discipline within bull society is rigid so the young learn very early on to respect age and rank.

Just as the behaviour of human boys differs from that of girls, so it is with elephants. Little bulls are more independent, more competitive within their peer group, always eager to dominate and become “top dog”, a position that others constantly challenge. Young bulls wrestle a lot and tend to be much rougher in

play than their girl counterparts. They tend also to be more “unruly”, more mischievous and adventurous and sometimes more badly behaved, deriving pride out of generating admiration from their peers for exploits that cross the boundaries of acceptable behaviour.

It is also not unusual for young bulls to suffer from a feeling of inferiority if they happen to be of a more submissive nature and unable to dominate their age-mates. This will also become evident if they have had a rough time from wild age-mates as well. During this phase, they tend to throw their weight around those that they are able to dominate i.e. the younger elephants and the human Keepers, which is when the females step in to restore the peace. Teenagers often enjoy chasing cars and, in fact, anything that will oblige by running away, including human bystanders. A display of aggression gives them a feeling of power and makes them feel “good” psychologically, although, when the chips are down, they tend to be more timid than the cows, until they are of high rank. However, when a young bull becomes a teenager, he must be respected as would a wild elephant bull. There should be no attempt made by human Attendants to thwart or try to dominate him in any way, for this will generate resentment. Human onlookers should, at all times, keep a safe distance, and should he charge a moving vehicle, the vehicle must be able to make a get-away.

Our young bulls who are now independent of the human family return from time to time, and when they do, it is always wise to allow them to make the first approach, rather than walking straight up to them. The elephant orphan will approach a human quietly if it wishes to do so, and if it does not wish to make contact, this must be respected, bearing in mind that elephants have mysterious means of communication and the fact that there is no reason whatsoever for the wild herds to feel friendly towards humans, who are viewed as arch enemies, could possibly influence the attitude of an orphan. However, he or she will always have a deep fondness for erstwhile human family members.

Our Aim:- The aim of our Orphans’ Project is to rear the orphaned elephants in such a way that they grow up psychologically sound so that in the fullness of time they can be returned where they rightly belong, amongst the wild elephant community of a large National Park that allows them the S P A C E they need to enjoy the quality of life as wild elephants that is their birthright. Since Tsavo National Park encompasses an area of 8,000 square miles (over 12,000 square Kms) and contains Kenya’s largest single population of elephants, currently standing at just over 9,000, it is here that our hand-reared orphans will ultimately live, for only this Park offers them the space they need.

As at 2003, the following elephant orphans were independent of the Keepers and established successfully amongst the wild herds of Tsavo National Park:-

Eleanor (f) - born in 1958 in Samburu National Reserve and orphaned due to poaching for ivory. This elephant remained to act as the Matriarch to many other orphans during the sixties and seventies, but when she fell pregnant herself when in her early forties, she handed over her orphaned family to a wild friend, and since the birth of her first calf has chosen not to maintain contact. We believe that this is because, thinking in an elephant way, she believes that the human friends who gave her numerous orphaned babies over the years might also have been guilty of snatching away the calves of others in order to acquire them and therefore might likewise try to take her own.

Mary (f) – born in 1977 near Mount Kenya. This young cow, who spent the first ten years of life at the Mount Kenya Safari Park Wildlife Centre, left Eleanor’s unit after the birth of her first calf in 1996, when Eleanor attempted to take it from her. Mary has most certainly had other calves by now, but, like Eleanor, has chosen to sever all ties with humans and has always avoided the Stockades which obviously reminded her of her incarceration when young.

Lissa (f) – born in Tsavo in 1986 and given directly into Eleanor’s care. When Eleanor left, she became absorbed into the wild herd led by a cow whom Eleanor had befriended and who took over Eleanor’s entire adopted family. Lissa has since had two wild born female calves, the first born in January 1999 and the second in November 2002. She and her two babies maintain regular contact with our orphans and their Keepers.

Chuma (m) - An orphan of poaching born in Tsavo in 1987, and handed directly into Eleanor’s care. Along with Lissa he was handed over by Eleanor to her wild Matriarch friend when she severed her human ties.

Mpenzi (f) - Born in 1992 in Tsavo and found alone near the Park H.Q., believed to be a victim of problem animal control. Like Chuma, she was handed directly into Eleanor’s care and along with Lissa and Chuma was taken over by Eleanor’s wild friend when Eleanor decided to sever her human ties. Mpenzi grieved up

to become Nannie to Lissa's two wild born calves, present at the birth of each, and extremely protective of them.

Olmeg (m) - Orphaned by poachers in Maralal, Northern Kenya, in 1987 and reared through the Nairobi Nursery from the age of 2 weeks. Unhappily, this orphan was corrupted, enticed to a Tourist Tented Camp on the Eastern Boundary of Tsavo by being fed fruit. There are rumours that he has since been killed, but this is something we have not been able to verify.

Taru (m) - Born in Tsavo in August 1987, orphaned by poachers – raised through the Nairobi Nursery from the age of 3 months and successfully integrated into the wild community by the age of 10.

Dika (m) - Born in Tsavo West in 1988, orphaned by poachers and reared through the Nursery from the age of 3 months. Successfully integrated into the wild community by the age of 10 and who returned after an absence of several years for a wire snare to be removed from his hind leg by his Keepers. He merely walked up to the Stockades, and stood stock still while the Keepers cut out the steel cable that had dug deep into his flesh, never flinching.

Edo(m) - An Amboseli elephant from the E Study Group, born in 1992 and orphaned when his mother died as a result of litter poisoning. Raised through the Nursery from the age of 6 months and now comfortable with the wild herds. He returns periodically to keep in touch with the other orphans and the Keepers.

Ndume (m) – Born January 1989, Imenti Forest, Meru, a victim of problem animal control who came into the Nursery unconscious, having been clubbed on the head by irate tribesmen when his elephant family invaded croplands. Raised in the Nursery from the age of 3 months and now successfully integrated into the wild community. Along with Imenti and Lewa, Ndume was relocated to Tsavo West National Park having accompanied wild bulls beyond the Park boundary into Voi town. Three weeks later, he turned up back home, a distance of 100 miles, despite the fact that he had never before been to Tsavo West, and was sedated and crated for the move.

Imenti (m) – Dropped by his mother in the Imenti Forest on 19th January 1994 as she was being killed by irate tribesmen. Imenti was rescued by Game Department Rangers just in time and brought into the Nursery when just hours old, still covered by foetal membranes. Never having benefited from his mother's first colostrum milk, his immune system was deficient, and he was only saved by an infusion of blood plasma taken from Malaika, which gave him the antibodies he needed to recover. (We have since saved another colostrums deprived newborn named "Wendi" in the same way).

Ajok (m) – Born in 1999 in Turkana, a poaching victim raised alone through the Nursery from the age of 1 week. Ajok joined the wild herds aged 4, and is therefore one of the most successful of our orphans. He was always a very adventurous and independent bull from a very early age and having grown to adolescence within a wild adopted family, has chosen not to return.

Lominyek (m) – Born 1995 in Samburu National Reserve, a poaching victim who was brought to the Nursery with bullet wounds at the age of 14 months. This calf was with us only until he no longer needed milk and by the age of 2 years, attached himself to a tuskless wild Matriarch and became an integral member of her family. Although he used to meet the other orphans and their Keepers on many occasions out in the bush, and greeted them all fondly, he never displayed any inclination to leave the wild Matriarch.

Uaso (m) – A poaching victim, born 1996 in Laikipia, and being some 18 months old, was flown directly to Tsavo to join Eleanor's unit. Along with Lissa and Mpenzi, he was handed over by Eleanor to her wild friend when she left. He now often returns along with Lissa and her babies to mingle with the orphans and their Keepers,

Lewa (m) – A poaching victim estimated to have been born in 1997 in Laikipia and flown from Lewa Downs directly to Eleanor's care. When 4 years old this young bull was relocated to Tsavo West National Park, along with Ndume and Imenti, since all three habitually accompanied wild bulls out of the boundaries of the Park and into Voi town. Ndume immediately walked the 100 miles back home, turning up 3 weeks later, whilst Imenti, desperate for his human family, (having been reared from the day of birth), became a problem at Kilaguni Lodge until his human family joined him and escorted him back home, a journey that took them 5 days. Being younger, Lewa was accepted into the wild herds and has not returned, hence his relocation proved successful. **From this experience, we now understand that the most important thing to an elephant is the family and the friends over and above environmental factors.**

"**Malaika**", who was orphaned along with "**Ndume**" in the Imenti Forest, estimated to have been born in January 1989, and who was raised with him in the Nursery from the age of 3 months, became the Matriarch of the Tsavo group when **Eleanor** left. She died in childbirth, along with her calf on 4th October 2000 after 9 days of unsuccessful and grueling labour, a devastating tragedy. Since then "**Emily**", a Tsavo elephant born in October 1993 and raised through the Nursery from the age of 1 month, has taken control as Matriarch of the Tsavo orphans, and as at September 2003 had 29 young elephants in her care, ranging in

age from 10 years to 2. “**Aitong**”, born in the Masai Mara in 1994, who took 3 months to recover from serious head injuries, probably inflicted during a stampede caused by poachers, is her Chief Nannie, supported by all the younger females who also act as Nannies to the smaller calves. **Aitong** is believed to be half way through her first pregnancy, carrying a baby the Keepers believe has been fathered by **Ndume**.

In the process of reintegration as at March 2004 , Emily’s Tsavo Orphaned family, inclusive of Aitong, comprised of 32 orphans, with a further 9 infants at the Nairobi Nursery.
