

Two young elephants spar gently. The bond of kinship, interdependence and mutual assistance in times of trouble or danger are perhaps the most endearing aspects of elephant society.

BBC ONE

The Secret Life of Elephants - a major new series - is coming soon to BBC1. Check Radio Times for details.

THE EMOTIONAL ELEPHANT

Anger, lust, love, grief and compassion - is it possible that elephants can feel such a complex range of emotions? SABA and IAIN DOUGLAS-HAMILTON share their experiences.

THE EXPERTS

BBC natural history presenter SABA DOUGLAS-HAMILTON met her first pachyderm at six weeks old when her father, IAIN, was pioneering the original behavioural study of African elephants in the wild. He now focuses on their long-distance movements in Kenya. Their work is the basis for the BBC's forthcoming series on elephants.



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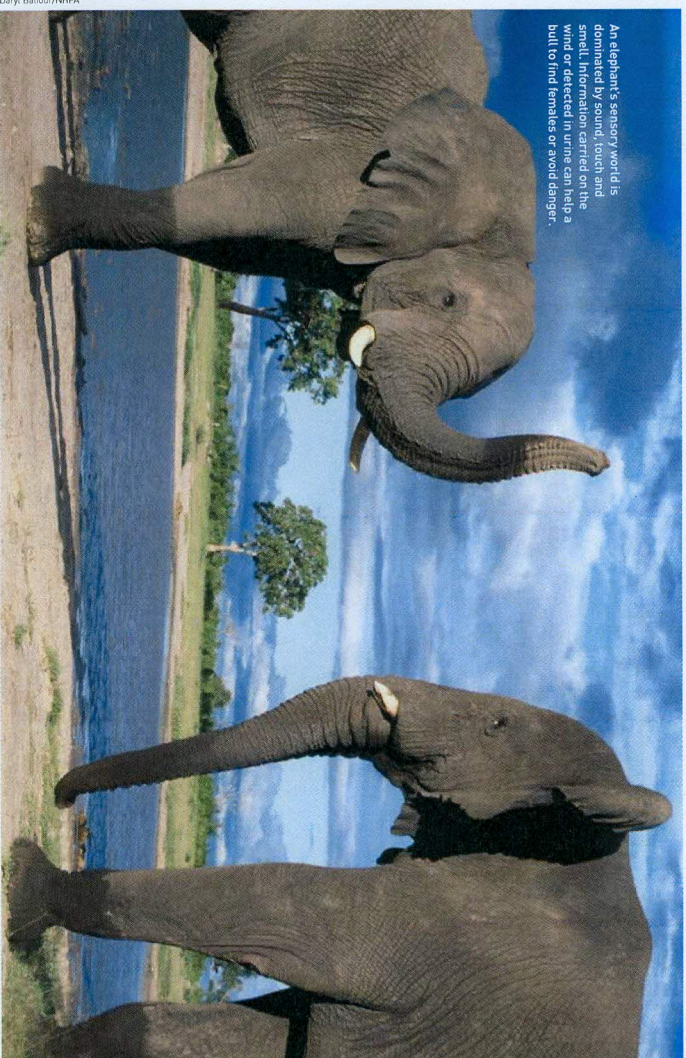
Being in musth requires a lot of energy, so bulls need to build up their strength. Just after the rains, there's plenty of food and huge aggregations of females around that are easy to find. The bigger and older a bull, the more likely he is to come into musth at this optimum time. A musth bull is often an angry bull, but his aggression is tempered when females are present to avoid scaring them. He wants to mate, and follows trails of hormone-laced urine to find females in oestrus. But when approaching potential mates, he is careful to show that he's no threat by striking a casual pose with his trunk slung over one tusk. Sometimes a mother may try to intervene if a large bull attempts to mate with her small, possibly underage daughter. This concern is just one example of the close ties of kinship and protectiveness that exist within a family—which leads us on to love.

LOVE AND JEALOUSY

The strongest bond in elephant society is the love of a mother for her baby, Harnatan, matron of the Winds, demonstrated this when she gave birth to Breze. She was always protective, guarding her daughter against all dangers and reassuring her with touch. But Buster, her older son, appeared jealous of the newborn. Harnatan had lost her last calf and so Buster had enjoyed his mother's undivided attention for six years. Now he constantly tried to push the baby away. Eventually, Harnatan rounded on him, attacking violently enough to protect her new calf and teach her older son a lesson he wouldn't forget, but without doing him any serious harm.

Elephants will also expose themselves to danger to protect other members of their family, with the matron making a stand

An elephant's sensory world is dominated by sound, touch and smell. Information carried on the wind or detected in urine can help a bull to find females or avoid danger.



Daryl Ballou/NHPA

while her kin escape. It is among the Royals, one of the more dominant families, that the close bonds of affection are most obvious. From years of tracking data, we've found that two adult females, Cleopatra and Anastasia, stick together like glue. The strong bond of mutual assistance makes during them for radio-collaring a delicate operation, as each rushes to the other's defence. We have to quickly screen off the targeted animal to keep our team safe.

But it's when the prone elephant is resuscitated that the Royal family exhibit their most striking reactions. The waking animal belows, summoning all of her kin, and they close in around her, each reaching out its trunk to touch and reassure her, emitting thunderous growls and loud trumps to express their concern and solidarity.

GRIEF AND MOURNING

Elephants have long been known to pay attention to their dead. We observed this behaviour when Colombo of the Flowers family

An unrelated female, Grace, pulls at Eleanor's body, trying to encourage her to rise.



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dropped dead by a riverbank from unknown causes. Her calves stayed by her body, silent and confused. Then another family—the Royals—arrived and, one by one, came over to investigate. Silently absorbed, they surrounded the corpse, none daring to touch it until, right at the end, one young bull gently tugged at her ear. Several moments later, other elephants visited her skeleton, touching, sniffing, picking up and tasting her bones, then scattering them over a distance.

A few years ago, we found the matron of the First Ladies, Eleanor, staggering around on her own, her trunk swollen and dragging on the ground. When she collapsed at dusk, Grace, the matron of an unrelated family, the Virtues, approached with her tail held high and streaming temporal gland secretion, an indication of stress. She touched Eleanor with her trunk and foot (left), and lifted the dying elephant to her feet. Eleanor reeled and fell over again. Grace belowed and kept on trying to raise Eleanor until long after the Virtues had left and darkness had fallen.

The next day, others came. Maui from the Hawaiian Islands family approached Eleanor, who was now dead, pulled out her trunk and then sniffed, touched and tasted the tip. She nudged the body, stepped over and then straddled it, rocking to and fro. Later, rangers removed Eleanor's tusks to keep them from falling into the wrong hands, and a new herd of elephants arrived, the Biblical Towns. They

stood with Eleanor for a long time as her six-month-old calf nuzzled the corpse, trying to suckle. The infant remained by its mother's body even after the rest of its family had been pushed away. Unweaned, it later died.

The compulsion of elephants to help the ailing and pay attention to the dead seems to be more than mere curiosity. Compassion is certainly evident. We have seen this interest often enough to know that it is not only a question of kinship, as elephants also display this same behaviour towards dead strangers.

SELF-AWARENESS

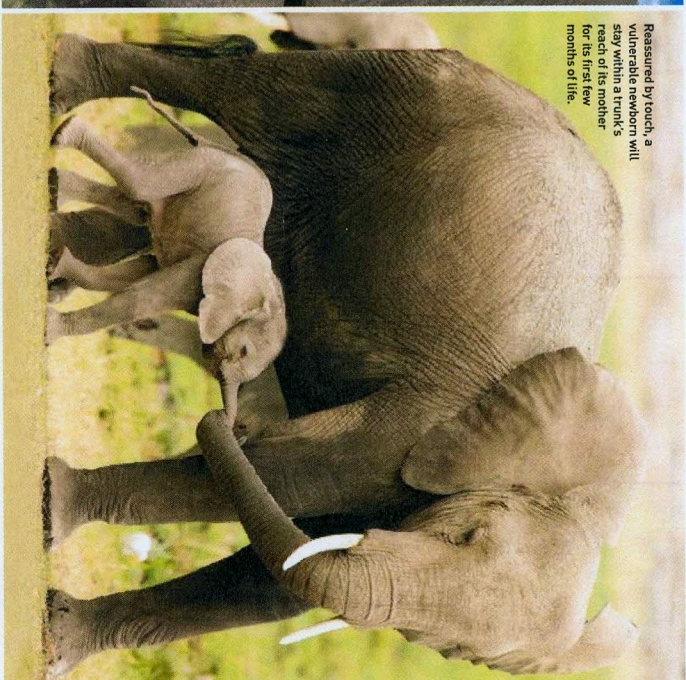
In recent experiments, elephants were able to recognise themselves in a mirror. This suggests that, along with humans, great apes and some cetaceans, they have self-awareness. They are long-lived, contemplative creatures, with powerful memories, that exhibit a high degree of social complexity.

When we see elephants fascinated by bones or 'grieving', it seems that they may have a sense of their own mortality. This, along with the purpose in their long-distance movements and their rich repertoire of emotions, including empathy, would suggest that elephants may have the mental tools for a stream of reflective consciousness not unlike our own.

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Reassured by touch, a vulnerable newborn will stay within a trunk's reach of its mother for its first few months of life.



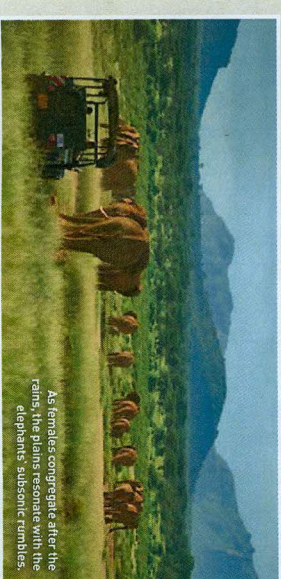
SAMBURU: ELEPHANT HEAVEN

Samburu National Reserve in Kenya is an elephant paradise – and more.

FRINED BY tall acacias and down palms, Samburu's 104km² are dominated by the mud-brown Usao Myro river that winds through sculpted hills running from east to west. It is a place where elephants can still play out their full range of emotions without fear amid a panoply of East African mammals, birds and reptiles – from Grant's gazelles and cheetahs to Nile crocodiles. The reserve is owned by the local people and earns important revenue that helps to finance education and health throughout the district.



Elephants: Michael Pridemore/Getty Images



As females congregate after the rains, the plains resonate with the elephants' subsonic rumbles.

Saba Douglas-Hamilton

BBC Wildlife 53