

## **CARING FOR ELEPHANTS**

*SAPA: 200705*

Elephant conservation should be considered in much the same way humans consider plans for their own health and well-being, an elephant management workshop heard on Tuesday. Sociality, which is the conservation of social structures and processes, has largely been ignored in conservation, according to a paper by Gay Bradshaw of Oregon State University and Allan Schore of the University of California. It was read out in their absence at the "Elephants Alive" workshop, held at the University of the Witwatersrand in Johannesburg. "The implications for the emergence of post-traumatic stress disorder in elephants make this oversight alarming," read the paper. "Culls, translocations and captivity create chronic stress, decrease fitness and undermine socialisation capacity, thereby reinforcing maladaptive behaviour." The paper reads that culling is not a viable tool for elephant conservation, reflecting a paradigm shift over the past decade or more in the basic sciences that underlie principles of conservation biology. "Recent interdisciplinary research has revealed that all vertebrates share the same underlying structures and mechanisms that dictate properties once considered uniquely human: culture, personality, language and emotions." Neuroscience has put animals and humans on an equal scientific footing, reads the paper. "Stress, trauma and other social disruptions -- what biomedical research has identified as having profound influences on human psychology, physiology and behaviour -- holds for other social animals such as elephants." Bradshaw and Schore wrote that like humans, young elephants show an extensive period of developmental dependency on adults that facilitates post-natal brain development. "The mammalian infant's environment is dominated by maternal care but can, as in elephants, include multiple care takers, where males participate in a second phase of socialisation outside the natal family -- that of older bulls." They pointed out that young male elephants may suffer from surviving culling in their herd for two reasons. "Male mammal brain development occurs at a significantly slower rate than females, and orphaned males lacked the second developmental phase of all-male socialisation." This all-male socialisation period serves the same purpose in elephants as it does in human adolescents when they experience a second phase of major brain re-organisation, read the paper. "Increases in human pressures imply that elephants will continue to live in landscapes dominated by disturbances. Under conditions of trauma, chronic stress and disabled rearing -- such as occurs with culls, restricted resources and herd breakdown -- ... result in hyper-aggressive behaviour."