Most of us would be upset if we saw a dead animal in a zoo exhibit, yet animals obviously do die from almost as many causes as do people. The chance of the public seeing a dead animal is very remote because long before the zoo opens each day, the keepers have made the rounds of their charges. Whenever an animal is off its feed, limping, or just looks out of sorts, the staff veterinarian is summoned, and if necessary the animal is removed from exhibit to the veterinary hospital for treatment.

Despite the best of care, however, animals do die and their demise can have consequences little realized by the casual zoo visitor. The main impact of zoo deaths is on the keepers. When daily work schedules require intensive care and feeding of specific animals, especially large mammals, a keeper easily becomes attached to his charges and probably interacts with them more than most pet owners interact with their pets. In all zoos, the animals are completely dependent on their keepers for survival—every day, all day. In some respects their dependence parallels that of human infants who cannot verbalize their feelings or their condition. An experienced adult, however, can discern a baby's illness by its physical appearance as readily as if it could talk. Experienced keepers become just as experienced in their assessment of animal health as pediatric nurses do of infants.

When a death or a series of unexpected deaths occur, as happened this winter among our big cats, a serious depression can arise among their keepers. The feeling of mourning was very much on all our minds. To help address this very real emotional stress, the head curator of mammals invited the keepers to a small seminar on the nature of mourning led by Dr. Aaron Katcher, a psychiatrist from the University of Pennsylvania. This session was not only therapeutic, but it was also useful in gaining insight into the keepers' natural bonding with dependent zoo animals.

After understanding better the mourning experienced by the keepers, we might investigate the degree of "mourning" within those mammals that live in extended family groups, such as many primates, elephants, and cetaceans. So far the evidence of "mourning" behavior among such groups is primarily anecdotal, but

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"...for the advancement of science and the education and recreation of the people."
our experienced keepers can detect definite changes in behavior patterns among individuals after a death occurs among their group. Much more observation is needed before such patterns can be quantified.

I have used mourning to illustrate the effect of breaking a close bond, in this case between a keeper and his/her charges, but also because it is an emotion humans tend to keep to themselves rather than to discuss openly. I want quickly to point out, however, that joy and exhilaration spontaneously permeate the zoo when one of our animals has a long-awaited successful accouchement. Life and death go on at the zoo as they do throughout the rest of the world, and the joy and sorrow felt when animals are involved can be just as strong for those concerned.

As a footnote, the Smithsonian World television program on the Zoo was a great success and had the highest viewer rating of any Smithsonian presentation. In case any of you missed it, I am sending you a video tape of the program under separate cover.