

Kookaburra adult feeding new hatchlings in nest.

This photo sequence shows the stages of development of a young Kookaburra, from hatchling to young adult. The photos were taken by D. R. Thompson and G.D. Dodge.

## KOOKY BIRDS & KINKY PROBLEMS

Text by Richard Rundel, Curator of Birds Photos by Dale Thompson, Curatorial Asisstant

Wild populations of birds do not reproduce on an equal basis. As discussed in a previous article, different pairs of birds of the same species will produce widely varying numbers of viable offspring. A primary determinate may be the habitat. If environmental problems (predator, weather, competition) are re-

duced, as in a suitable captive environment, reproductive activity should be observed. The breeding instinct is generally very strong and regular under suitable conditions. Our toucan and bird of prey programs readily demonstrate this premise. The subject of this article is what to do if a pair of birds breed regularly and then slowly seem to lose their vigor.

Once a good healthy compatible pair of birds settle down and start rearing young, the aviculturist is pleased and begins dreaming of all the young he will have in the future, only to be dismayed a year later to find his prize breeding pair is not laying fertile eggs, or even worse, not even laying. What went wrong? Close examination may not reveal any basic change in their environment. The tendency is to search for a factual answer. The birds are too old! The diet is not right! A small change in the exhibit



28th day



disrupted the pair!

The above listed points are valid causes for disruption of breeding cycles, but one should be careful about jumping to a conclusion too quickly. My initial reaction is to be sure that the reproductive cycle is indeed stopped, as opposed to a temporary interruption. During this waiting period, one should carefully review the aviary for outside influences. Rats, mice, skunks or owls may be disturbing your birds at night, and even taking eggs before they are discovered.

The next point to check is the status of other birds sharing the aviary. Individual bird personalities may vary considerably, depending upon whether they are paired up, especially if they are nesting. Minor problems may arise simply if a large ground bird decides to change its roost and perch on top of the nesting box or platform at night. During the day the cause of your problem might never be



35th day

14th day



observable.

After reviewing the above points, if an apparent cause is not determined, the normal cause of action is to assume that one bird of the pair is no longer reproductively active. The next move is to trade one of the pair for another of the same sex and start over again. If you are working with non-aggressive species (waterfowl, finches) then this kind of move may be a good idea. If you are working with birds that are prone to compatibility problems (toucans, birds of prey) or with a rare species, I would first look for a behavioral stimulus that might be applied.

The idea of using a behavioral stimulus originated from a series of simple observations. A breeder with three pairs of Australian parrots (polytelis) generally have better breeding results than three breeders with a pair each. Certainly the breeder with three pairs has the oppor-



42nd day



tunity to switch mates and therefore work with balanced pairs in regards to compatibility. My question was, does the presence of extra birds in proximity to a breeding pair possibly provide social or competitive stimulus?

A similar observation was made with finches. The presence of an extra male Shaft-tailed finch appeared to stimulate a breeding pair to recommence breeding. Unfortunately, it also stimulated aggression towards the intruding male which will be lost if not removed in time.

The Los Angeles Zoo has had three pairs of Kookaburras for several years that laid fertile eggs in 1971. Following that year, their nesting drive decreased, and although eggs were laid regularly, they were not fertile. In the fall of 1975, we moved two of the pairs of Kookaburras to an off-exhibit holding area into separate cages approximately 20' apart.



48th day

Full grown Kookaburra



The pairs immediately commenced vocalizing and became very active. At one point one pair became so excited, it was necessary to separate them into adjacent cages. Following a one month period of interaction, they were returned to their former exhibits.

Breeding results this spring have been very rewarding. Presently, one of the above pair has now fledged three young. The second pair is on eggs and our third pair, who were briefly involved in the interaction, laid three eggs, two of which hatched and one surviving chick is one week old.

I realize the theory is merely speculative as the observations are not properly documented or quantified but I certainly am pleased with the results. Social stimulus, if properly controlled, certainly can't hurt and does conform to present trends towards stabilizing one's breeding efforts with a fewer number of species •

