

Preventive Health Care for Aviculture

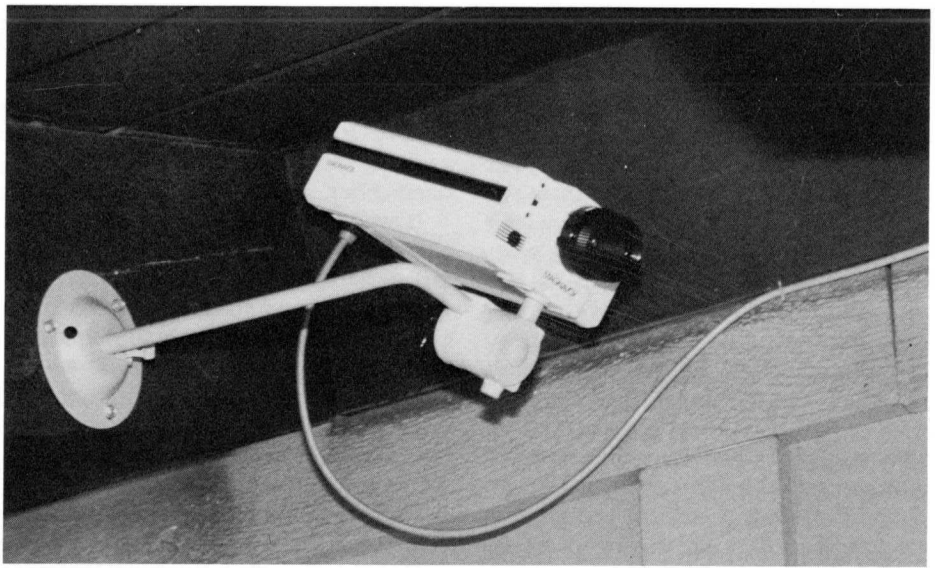
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Modern technology continues to creep into our lives at a rate unprecedented at any other time in history and aviculturists and their birds are not immune to this process. Computers and other electronics are being applied to aviculture and are becoming recognized as the powerful tools they are. One such example is the computer listing of the current zoo populations for the cataloging of these species and their locations. The I.S.I.S. (International Species Identification System) program aids zoos and collectors in mating single individuals or obtaining new blood lines for closed populations in order to offset decreasing world populations.

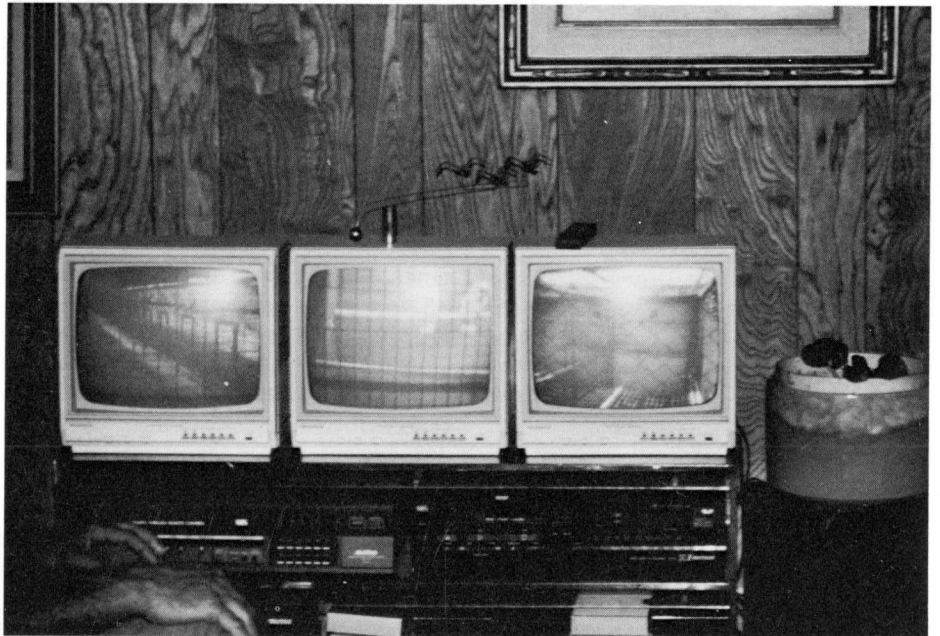
This is a useful system achieved through design. I have been fortunate to have witnessed a system just as helpful for the average aviary owner that came about as a result by accident.

A client of the clinic owns and operates a huge, closed aviary essentially single-handed. The aviary started experiencing a loss of expensive power equipment despite fences, locks, night lighting and a pair of rather ferocious dogs (sound familiar?). The owner installed a series of closed circuit video cameras with a bank of television monitors to observe the aviary walkways, grounds and nursery at night simultaneously. The cost of these electronics has dropped into the range of accessibility for most citizens as competition pushes prices lower. Large wholesale style warehouse merchants and the buying clubs have reduced the buying price even lower. A standard video camera, monitor and cable kit can be obtained for as little as \$199 (i.e., Pilleps produced by the Magnavox Company).

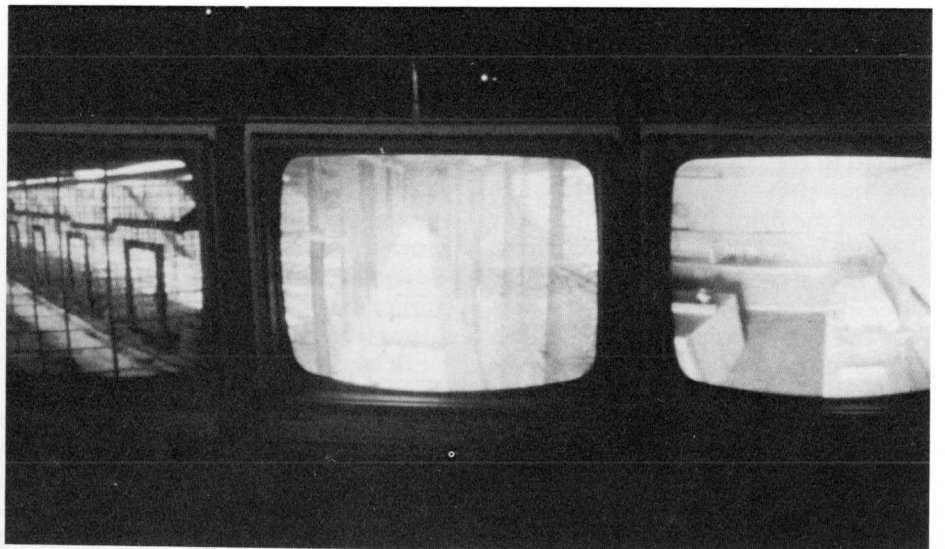
Diligence paid off for this owner and the culprits eventually were caught after a short period of time. They turned out to be day laborers hired for construction on the premises and had made friends with the dogs, probably via the lunch box



Front door security camera mounted on overhead beam.



Office multi-view video bank for security system.



Multiple closed circuit monitors allow for pair privacy and observation of birds' activities and health status while remaining undisturbed.

Photos by Robert Clipsham, D.V.M.

method.

After the thieves were caught and arrested, it seemed natural to keep the cameras in place to act as a deterrent and/or a detection method for future break-in attempts. Video recorder units had been added to the monitor systems so that a regular night's sleep could still be had with an instant playback of the night's taping in the morning. The cameras are of the type with microphones which act as audio monitors, and can be recorded simultaneously on virtually all of the new VHS machines which are so popular. The sensitivity of these microphones is impressive. A quarter dropped on pavement ten yards from the camera can be heard over the monitor as plainly as if it had landed near your own foot.

As the owner continued to casually monitor the screens occasionally during the day and during the routine morning playback, it became obvious that a pattern was emerging that was entirely unseen before.

Bird behavior was being recorded accidentally, with some fascinating results being observed.

Prior to the introduction of the camera, the bird collection had been essentially unchanged for many years and the same pairs mated for many years. The owner was virtually the only person working in the aviary for the purposes of cleaning, feeding and nest box checks. The aviary is of excellent design and construction and considered by many prominent aviculturists in southern California to be an example of state-of-the-art avicultural management. The production had been fair to good with the normal lack of success with the usual species and particular pairs. The collection consists of several conure species, macaws, African Congo greys, most of the *Cacatua* species and several of the *Eclectus* sub-species. The birds reacted to the continuous presence of only one person favorably, although many of the pairs, especially the more nervous species (cockatoos in particular) had always hung frozen on the wire or dived into the nest box whenever the owner appeared, regardless of the duration of housing in the flights.

For the first time, the recorded video tape was revealing tremendous differences in the behaviors and activities of these pairs while no human disturbances were present. Extensive play behaviors, courting, preening, copulation and pair bonding behav-

iors were ongoing with pairs that had never revealed any evidence of interest in each other under the owner's direct observation. Other pairs continued to sit passively at opposite ends of the perch with no interest in each other.

It was now becoming obvious that the video tape was presenting this aviculturist with a unique and effective tool beyond any simple human effort. For the first time, occultly bonded pairs could be accurately identified from those that actually did not possess any breeding potential. This process instantly eliminated much of the guesswork of which pair(s) to break up and rematch or which pairs to relocate to another flight.

Considering that financial analysis of several major aviaries have repeatedly shown that for every bird dollar invested, there is an equal dollar invested into wood, wire, feed, utility bills, and labor. Therefore, a Moluccan cockatoo pair purchased at an average of \$600 to \$700 will cost the same each year if one uses a five- to seven-year depreciation scale for bird purchase price, aviary construction costs, feed, water, electricity and vet bills. It is not uncommon to wait two to three breeding seasons before splitting up or selling pairs that are not productive. This equals somewhere between \$1500 to \$2000 for the average conscientious aviculturist. Considering the cost of a video system (\$200) and the sale price of handfed Moluccan babies (up to \$1800 each in southern California), it makes sound mathematical sense to consider this tool as an option.

Other uses that have been found to be very beneficial are the installation of video cameras in the nursery. Cameras focused on incubated eggs are accurate enough to reveal pipping activity and the microphones are sensitive to even pick up pre-pipping vocalization in some models. This relieves the aviculturist from constantly checking eggs while he concentrates on other daily tasks.

Hospital monitoring has also proved to be a great time saver as it allows for close monitoring of ill or weak birds in hospital cages or incubators without constantly exposing personnel to potentially infectious diseases more frequently than would occur without such equipment.

Birds suspected of being poor doers, poor eaters, coming down with a disease condition, or the victim of mate abuse, can also be

monitored by these devices.

A second benefit not previously considered by any of us was the discovery of subtle and previously unobserved normal behaviors of the various bird species.

Macaws have been consistently observed to chase each other in play around the wire flights approximately one-half hour after sunrise and shortly before sunset, with the play period ending in copulation. Cockatoos were seen to have random activity periods, although they seemed to be generally later in the morning or earlier in the afternoon. Cockatoo breeding sessions also seem to be more random in this aviary.

Pairs have been relocated, rematched or sold as a result of several years of video televised observations. The other positive aspects of the employment of this review system have been a greater ability to maintain close contact with several aspects of the operation simultaneously, the continuance to act as a tireless sentinel for aviary security, and the elimination of countless hours of running back and forth (ever had the feeling of running 50 miles a day in the same quarter acre?).

This aviary directly connects its commercial success, in part, to this accidental discovery. It has proven itself to be an excellent and cost effective management tool. I think as birds become more expensive and more efficient ways of promoting good health and increasing baby production are needed to offset higher overhead costs, including bird replacement, this option rates high on the list.

Several other aviaries have initiated this system and all have had very positive comments to date. Not all of these more recent efforts have had the same level of success as the first aviary, which goes to point out that aviary management involves multiple aspects which are interdependent and equally important, such as diet, temperature control, and sanitation. The other owners are convinced they are more aware of their birds' activities and feel that the investment has at least paid for itself.

I think that as more aviculturists use this novel concept, more uses and more users will appear. The images you capture on tape at home may be as important as the pictures I see through an endoscope or on a culture plate when it comes to the final success of your breeding operation. ●