Spacing Requirements of Breeding Parrots

by James J. Murphy Graham, Washington

estled among the cardinal sins of aviculture, often unseen and dwarfed by the more well known offenders of successful breeding, such as *Poor Diet, Inadequate Living Quarters*, and *Emotional Stress*, lies the destructive power of improper spacing between breeding pairs.

To gain better insight as to the magnitude of this problem, a review of the basic biology of cavity-nesting birds may be helpful. There is only one open nest builder among the 32 species of parrotlike birds. The single proponent to this form of nest building is the Monk or Quaker Parakeet.

Suitable nesting cavities range from rock crevices, sandy bank burrows, abandoned woodpecker holes, rotted tree limbs and chewed out crowns of palm trees. Old rotting tree cavities are by far the most popular nesting place.

Most small to mid-sized parrots would fall into the secondary cavity nesters category. That is, the smaller parrots will often occupy tree cavities originally excavated by another bird, perhaps a woodpecker. However, any suitably sized and properly rotted tree branch or trunk will be readily excavated to a suitable size and depth by a pair of home hunting parrots.

Central to the behavioral ecology of cavity nesting birds is the recognition that cavities suitable for raising a family are a scarce commodity in the bird's forested surroundings. Strong, healthy forests absorb the dead trees among them, recycling their precious nutrients to be reused by the next generation of green growing things. This mandate to recycle all available nutrients insures that old snag trees and dead large branches will always be scarce and precious commodities.

During the non-breeding season, most parrots travel in large, noisy flocks. As the breeding season grows near, the mated pairs split off from the flock to search out that hard to find commodity — a suitable nesting cavity. Older experienced pairs will return to their same nest site. While newly coupled birds are

destined to search, often in vain, for the home cavity. However, once adequate housing is located in a housing-shortage environment, the home site is protected and defended with considerable vigor and used over and over again, year after year. This aggressive defense of the nest site is carried over to the domestic aviary environment, as many a bleeding finger will attest.

This innate tendency to raise a family in tree hollows, with all the necessary activity of enlarging the entrance hole and remodeling the wooden interior to suit the needs of an expanding family, accounts for the tendency of aviary parrots to chew on wooden perches and unprotected insides of nest boxes that is so often seen immediately prior to egg laying. Wood chewing is indeed an ancient habit among the parrots.

The location of the nesting cavity's opening is usually kept secret until the site is secured. The hen will often sneak into the cavity at twilight when a few prying eyes are likely to detect her intentions and give away the location of her prize possession — her home.

Nest site spacing between breeding pairs in the wild, then, is determined by the availability of scarce accommodations in the forest environment. This natural scarcity places breeding members of the same species often some considerable distance apart. However, man-made nest-boxes are seldom a scarce commodity in the aviary...and there lies the source of the spacing problem.

Because non-cavity nesting humans are designing the living quarters of cavity-nesting parrots accustomed to thousands of generations of liberal distances between nest sites, gross miscalculations are often made in the name of conserving space as defined by the non-cavity nester who just happens to be paying the bills for all the necessary facilities in the

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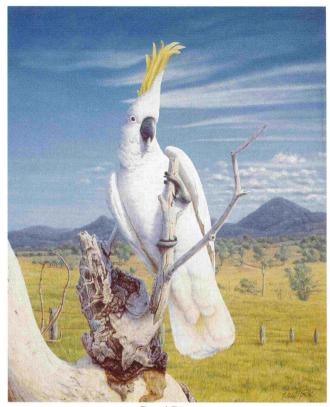
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Hot Gossip

aviary or bird room.

In many cases, space in the bird room is as scarce as the availability of suitable cavities in the natural environment. Therein lies the dilemma. Severe aggression between breeding pairs of the same species forced too close together is most evident during the breeding season when for eons of time a considerable distance would have separated them during this period. Unrelieved aggression in the nesting pair can be misdirected toward a mate, often with disastrous results. (During the non-breeding season, most birds re-flock in their traditional social groups and the level of nest-site defense aggression evaporates.)

Competition in nature is most intense between members of the same species. They have the same living requirements and use the same natural resources. Competition is greatly reduced or completely eliminated between members of a different species that do not compete for the same natural commodities.

This natural tolerance of different and non-competitive species can be used to an advantage in the bird room. When space is at a premium, *alternate* species. If you have two or three pair of the same species, space them as far apart as possible with other species placed in between.

Further, provide a visual barrier between nest-boxes. Keep the entrance of the nest-box hidden from prying eyes. If this visual barrier is made of heavy fabric, it will also serve as a sound barrier as well. Keep in mind, the bird's assessment of nest site territory encroachment is both visual and auditory!

I have noted with alarming regularity the violation of *nest site territory* caused by breeders inadvertently placing two nesting birds of the same or *closely related species* too close together and thus greatly contributing to nesting failures. I have even seen breeding cages stacked one on top of the other with no barrier between the upper and lower compartments. The droppings of the luckier upper cage occupants fall through and *on the feathered heads below*.

Variation and modifications of the aforementioned natural spacing scheme can be observed in the captive environment. As might be expected, different species have different degrees of spacing tolerance. To add to this complexity, *individuals* within a species vary greatly in this respect. As a generalization in bird behavior, the smaller the bird, the closer together they will nest (colonial nesting

birds are excluded from this comment). Further, in the captive environment, long-term familiarity between neighboring pairs can reduce the natural spacing requirements to a level of near indifference. However, this level of familiarity may take years.

In addition, placing breeding pairs too close together also greatly increases the opportunity for disease transmission. The breeding season is a stressful period for all participants. Disease carrying birds that otherwise look and act healthy, may shed viruses and other pathogens during this period. The closer the neighboring birds, the greater the chances of infection spreading throughout your flock. Nationwide losses from this avoidable disaster is tremendous. Under natural spacing circumstances, disease transmission is reduced or stopped by the barrier of distance.

Very frequently, a successful breeder of Amazons (Yellow-napes, for example) will capitalize on their breeding success and bring even more pairs of Napes into their (usually indoor) breeding facility. As the numbers of pairs increase, the chick productions decrease. Just the opposite of what the anxious breeder expected. What happened? The answer may well be that the Napes have reached Critical Mass and reproductive success waned. Too many Napes in a given area, with too much energy going toward nest site defense and not enough energy for "romance". Again, keep in mind that cavities are a rare resource in the wild and remarkably few species of parrots flock-up to breed in the colonial atmosphere of a bird room!

The best way to determine if your birds are spaced too close together is to watch your birds' reactions to each other during the breeding season. A male hanging on the wire, continually verbally chastising his neighbor is not a good sign. While strong aggression within the bonded pair is another danger signal.

Methods of observations can be as simple and pleasant as sitting at a discrete distance and noting their behavior. Or using a video camera to remotely record behavioral interactions without a hint of human interference. The video cassette can be played back at speeds much faster than real time and can be reexamined to gain more insight on the details of bird behavior. The video tapes can easily be stored to form of a reference library of invaluable behavioral information for yourself and others.



A Favorite Amazon

t was nearly 10 years ago that I walked into a friend's bird shop and viewed my first Yellow-crowned Amazon Parrot. She was sitting placidly in a stainless pedestal cage in the corner—consigned by some folks leaving town, I learned, for \$400 with stand.

"Some people call this a single yellowhead," the owner explained. "It is not banded, so we don't know the origin. It doesn't do much, makes no noise at all."

Already possessed with a Redlored and Blue-fronted Amazon, I had more than enough noise so I opened the cage door, stuck out my finger and said "up." The bird calmly stepped on my hand and began to preen. She was immaculate! As quiet demeanor and pristine grooming can be an early indication of females in Amazon genera, I sensed I had found a hen, and bought her on the spot.

"Tai," named after the Chinese hexagram for "peaceful," was to become one of my most beloved pets. She was so well behaved, I began taking her everywhere. The further we went afield, the more attentive and quick-to-learn Tai became. I have always allowed my pet birds "tree time" out in the back yard; this Amazon proved so careful, observant and intelligent that we soon developed a routine whereby she would spend hours outside in her favorite mulberry tree. She would chew and destroy very little and make nary a peep to attract attention, so I began hanging her food dish up in the tree. Every evening at 10:00