All Creatures Animal Hospital

Avian Reproductive Health

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Recommended Health Criteria for Breeders

- Exposure to birds of poor or unknown health status has not occurred for at least 3 months.
- Physical examination by avian veterinarian was normal within the past year.
- Baseline laboratory evaluation showed no health problems.
- Screening for infectious diseases was negative.
- Laparoscopic examination of the reproductive organs revealed no abnormalities.
- At least 6 months of reproductive rest has occurred since last breeding season.

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Aviculture in the New Millennium

In the 1980's and 1990's many people got the idea that since parrots were so expensive, if they could breed them, they would make a lot of money. This is not as simple as it looks. Many put all they can afford into buying breeding stock, and leave little for proper care of the birds. Additionally, large groups of birds are more likely to be devastated by an outbreak of an infectious disease.

Today, there is a surplus of parrots and it is not uncommon to find even expensive birds given up for adoption. There is still a market for high quality young birds, but the market is not without limits. The successful aviculturist today must plan carefully.

- Limit the number of birds and specialize in particular groups or species. By breeding smaller numbers of birds, proper nutrition, healthcare, and husbandry is much more practical. By specializing in a particular genus or species, a greater expertise in their care and behavior can be attained. It also allows for birds to choose their own mates, which can improve production. Additionally, this allows fostering eggs or chicks in certain situations.
- Set minimum standards for health and behavior for birds entering the aviary.

Today's aviculturist must plan carefully.

- Quarantine all new, sick, or returning birds
- Limit pairs to two clutches annually.
- Socialize all chicks to both humans and other birds.
- Feed carefully balanced diets.

Flocking

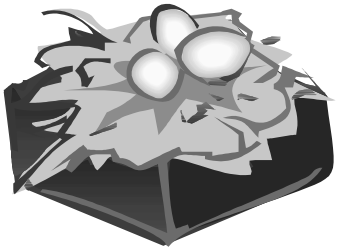
Most parrot species spend their non-breeding seasons in large flocks and then guard a small territory around their nest from other birds during the breeding season.

By housing a group of same-species birds in a very large enclosure with no nest sites, this flocking behavior can be replicated in aviculture. Plenty of food and water sites should be available and there should be plenty of perching sites.

Flocking young birds allows them to learn normal social behaviors. It permits new pairs to form naturally and even existing pairs will sometimes part and reform with other partners (just like people!).

Unwanted Egg Laying

Chronic egg laying (CEL) in pet birds is a problem that has become increasingly common as some types of birds are becoming more and more domesticated. Pet birds are often selectively bred for high production and consequently may try to reproduce uncontrollably. Contrary to popular belief, egg laying in birds does not require the presence of a male bird. Only the fertility of the egg depends on the male. While some may argue that continual egg laying is not a problem since domestic chicken hens lay eggs almost daily, it must be remembered that domestic chickens are only kept alive for about one to two years. The egg (despite its recent bad reputation because of the cholesterol content) is a concentrated source of high quality nutrients. Even the shell has large quantities of calcium. Where do these nutrients come from? Usually they come directly from the body stores of the hen. Combine this with the fact that most pet birds are fed nutritionally inadequate diets and it is easy to see where a serious problem can develop. Additionally, the hormonal changes involved in the reproductive process of the female temporarily makes them less enjoyable as pets. Most pet birds do not spend time to incubate the eggs and raise the chicks. Therefore, they start laying eggs over and over.



The egg is a concentrated source of nutrients

Serious medical conditions can occur when eggs are laid without control. Egg binding, oviduct prolapse, egg-related peritonitis, and “yolk strokes” are conditions that can be life-threatening. As a result, female cockatiels have average life expectancies far shorter than males.

Discouraging Egg Laying

Environmental alterations work best in those species that are seasonal in their breeding habits. Year round breeders such as cockatiels may temporarily respond but often will revert to egg laying when the techniques are suspended. Specific techniques involved are:

- Limit light to six to eight hours per day. At all other times the bird must be kept in total darkness. Covering the cage or keeping in a dimly lit room will not be adequate. Day length for a bird is from the very first visible light to the last.

- Disrupt the environment by moving the cage to another area. It may be helpful to move the cage into a room with no windows to allow for the light restriction.

- Cut the moisture content and caloric content of the food. Some birds breed during the rainy season or when certain high calorie food items are plentiful. A forced change to pellets may be good here as they will help replenish nutrients and are dry and lower in calories than seeds. Ask of our staff members for a diet change program.

“Year-round breeders such as cockatiels may temporarily respond but will often revert to egg-laying when the techniques are suspended.”

- Minimize petting, stroking, and other physical contact with the bird until egg laying ceases. Some pet birds see the owner as a mate and this type of handling may encourage reproductive behavior. If the bird directs sexual behaviors toward certain toys, these toys should be removed. If the bird actually has a mate, they may be separated temporarily.

- Leave the eggs with the bird or replace them with "dummy" eggs. The size of a clutch of eggs is often determined by the size of the brood patch and many hens will stop laying when a certain size clutch is obtained. Removing the eggs as they are laid may encourage the bird to replace those removed.

- Remove any nesting boxes or other structures or materials that may be used for nesting. Generally, anything that is enclosed and dark should be avoided. Most hookbills are cavity nesters so the presence of a dark spot stimulates reproductive interest. Finches and canaries make open nests, so platforms and the presence of fibers for nest building are likely to stimulate egg laying.

Spaying a Bird?

Pet owners are familiar with prevention of reproductive problems in dogs and cats. In these species, routine ovariohysterectomy (spay) and orchiectomy (neuter) surgeries are everyday procedures. As a result, reproductive tract disorders are much less common than they once were, and the life expectancy of these pets has risen.

Routine surgical alteration has reduced the incidence of reproductive disease in dogs and cats.

These procedures are somewhat different in birds. Anesthesia is inherently more risky in birds than in traditional pets. Additionally the smaller size of birds requires that blood loss be kept to an absolute minimum. Despite these limitations, surgical alteration of birds can help to prevent or treat most of the reproductive disorders in birds. While the risks are higher than they are for dogs or cats, they are lower than the risks of egg binding, egg-related peritonitis, prolapse, or other reproductive disorders in high producing hens. In general, the safest time to perform these procedures is when the reproductive tract is inactive but is most commonly recommended when a hen is reproductively active. Therefore, hormonal treatments are usually given to the bird a week before the scheduled surgery to bring the reproductive system into an inactive state.

Techniques are improving and expanding over time. There is even a procedure for removal of the immature oviduct with an endoscope that requires only a 1/4 inch incision. This procedure may be advisable in species with a high rate of reproductive disorders, such as cockatiels.

Hormone Therapy

There are situations when a egg laying should be immediately ceased to protect the health of the hen. In these situations, hormone therapy may be used.

There are a variety of drugs that are used for this purpose, and as time passes, the information we have on safety, efficacy, and duration of effect for these drugs increases.

In many cases, the potential side effects of the drug can limit its usage. In general, a complete health evaluation of the hen should be performed to determine if there are pre-existing conditons which may influence our selection of hormones.

"Hormones can quickly shut down egg laying when serious threats to the hen exist."

Hormone therapy should be thought of as a temporary measure and either environmental or surgical means should be used for the long term.

Male Reproductive Problems

Diseases of the male reproductive system are relatively uncommon.

The most common condition affecting the male reproductive tract is neoplasia, or cancer of the testis. These tumors are relatively common in the budgerigar but are rare in other species. Sometimes the budgie will present as a "sex change". A bird that previously had the bright blue cere indicating that it is a male, develops a dark brown cere which suggests a female. This is due to hormones produced by the testicular tumor. Other times the mass goes unnoticed until it is large enough to cause abdominal distension.

Budgies with a "sex change" may have a testicular tumor.

With early recognition, these tumors can be successfully removed surgically.

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Quality medicine in a caring environment for pets of all species

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At All Creatures Animal Hospital, we strive to provide the best of veterinary care and quality of life for pets of all species. This is accomplished through continuing education of our doctors and staff, education of clients regarding pet care, and the use of progressive, up to date techniques. At the same time, we try to provide convenience for our clients by providing boarding, house calls, pick-ups, and obedience training.

Boy or Girl?

Is it a boy or a girl? The answer to this question, while obvious in most mammals, is a very difficult one in birds. Since birds do not possess external reproductive organs, only those with obvious differences (dimorphism) between the sexes can be sexed visually. Unfortunately, many pet and aviary species are monomorphic, meaning that there are no external differences. This has led to the development of several techniques for sex determination in birds.

Some species of birds have functional or vestigial copulatory organs (phalluses) inside the cloaca of males. In these species this organ can be palpated (felt) or everted (turned inside out) to sex the birds. The main drawback to this technique is that the species that these organs occur in are not commonly found in aviculture and most of them are dimorphic anyway. Such species include poultry, waterfowl, and ratites (ostriches and their relatives).

Many pet bird species are monomorphic

Surgical sexing is a common method and is the most useful technique for the breeder. What is involved is the insertion of a fiberoptic probe into the side of the bird to visualize the internal organs. The presence, type, anatomy, and maturity of the reproductive organs can be determined. In addition, virtually all of the organs on that side of the body can be directly seen, allowing some assessment of overall health as well. Surgical sexing is very accurate, when the veterinarian is experienced and good equipment is used. This procedure carries with it the risks of general anesthesia and of puncture of organs. These risks are minimal if the veterinarian is experienced.

A non-invasive sexing technique involves analysis of the DNA from blood cells to determine the sex of the bird. "Blood sexing" is highly accurate in those species for which there is enough data to perform the test. The DNA can also be stored as a means of definitive identification. This test looks promising for the future of genetic management, allowing determination of relatedness, parentage and other uses.