



## Aspects of Behaviour in Aviculture

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Normal breeding behaviour is of great importance for success in aviculture. In the wild and under suitable cage conditions, all lovebirds display the behaviour that gives them their common name. In the wild and under suitable cage conditions, all lovebirds display the behaviour that gives them their common name. They pair early, often prior to puberty, and once pairs are formed they normally endure for life. Pair information is a rather undramatic event. Unpaired birds seek out the company of other unpaired birds and test them, as it were, by attempting to preen them and otherwise engage their interest. Couples quickly discover if they are compatible and generally it takes no more than a few hours to establish lifelong pairs. Finches and canaries are much less discriminating in breeding partner selection. Incompatible pairing is quite important in breeding failure. One scientist believes that a proven breeding pair will produce progeny even under conditions of incredible adversity, whereas, if a pair is incompatible no matter how ideal the aviary conditions are, breeding will be a failure.

Examples of reproductive abnormalities seen with incorrect pairing are:

- Abnormal aggression by one member of the pair towards the other.
- A complete disinterest of male in the female, which may graduate into the stage where courtship displays are absent or rudimentary and pairing does not occur.
- An abnormal fear of the female, so that while he may give normal courtship displays and feed the female, he does not attempt to pair with her.
- Although normal pairing occurs, the male shows little or no interest in feeding the female or the young.
- The male actually interferes with the eggs or the young.
- The female mutilates or plucks the young in the nest.

Another abnormal breeding behaviour exhibited by cage birds is their sexual preference. Homosexual activity has been observed but is considered not to be abnormal, as the same individual may take up heterosexual relations later on. This behaviour is explained by the fact that many birds 'male' or 'female' behaviour is determined by whether the bird feels dominant or inferior to the other individual. Hence the viewing of a mating does not necessarily mean that you indeed have a pair. Many people can attest to the error in using behaviour to sex Peach Faced Lovebirds.

On a similar vein, hand-reared birds such as parrots or pigeons may display their courtship display only towards man and try to copulate with the hand of the owner. This is not an uncommon condition in budgerigars and may be a display of affection or as a result of the birds being imprinted to man and consider man as a sexual partner. Many vets refer to this as the "Randy Budgie Syndrome".

In the wild, parrots start investigating the potential nesting sites long before the onset of the breeding season. Hundreds of sites are inspected before a final selection is made. Nest building in finches is also an important event and involves collecting materials for the nest which are attractive to them. However, nest building is not entirely bound up in the reproductive cycle since the instinct is so strong in finches, that, if unlimited material is present, they will build over eggs without incubation taking place.

In aviaries, if unsuitable nests are provided then birds may lay eggs on the ground or in other unsuitable sites.

Research has shown that the main points to consider when providing nests are:

- Adequate height from the ground.
- An attractive opening facing away from the sun, but not in too dark a situation.
- The entry hole only large enough to allow the birds to enter.
- Nest site of sufficient depth to give a feeling of protection.

It is also important to provide privacy for the entrance of the bird's nest site. It was found in one zoo that some parrots preferred breeding when their entrance was facing away from the public.

In parrots, with the pairs formed and nests built, courtship begins. Initially the female is frequently indifferent and even actively aggressive against the male each time he begins to woo her. The male's response is a combination of fear, sexual appetite, aggression and consequent frustration. He makes his first approach by sidling toward and then away from the female, will make a series of high pitched vocalisations and scratches his head with his foot. There is also the transfer of regurgitated material from one member of the pair to the other. This courtship feeding is usually carried out by the male and is preceded by a convulsive bobbing of the head.

It should be noted that a number of very social species, the sight, and even sound, of other birds of the same species is a powerful stimulus to induce the onset of reproductive activity. There may be many reported cases of a single pair of budgerigars, making no attempt to reproduce until being placed within sight or sound of other budgerigars and then breeding commenced.

Another major factor that influences the breeding cycle is the photoperiod - the amount of light and darkness each day. It is important that the required amount of light and darkness is provided for best breeding results. This may be achieved by the use of artificial lighting if birds are kept indoors. In outside aviaries artificial light to increase day length may hasten the onset of the breeding season, however, under Australian outdoor conditions it is best not to interfere with the photoperiod. Once fertile eggs have been produced, there are still further questions that aviculturists must decide on for best breeding results:

*Should the eggs be naturally or artificially hatched?*

Artificial incubations results in a higher degree of hatchability, especially if the birds incubate the eggs naturally for 5-7 days prior to artificial incubation. In breeding programmes, the second clutch is usually left to be incubated and raised by the parents. This means the parent's ability can be judged without risking all the years young.

*How should the chicks be reared?*

Hand-rearing:

The advantages of hand-rearing are the chicks have a greater chance of survival and become accustomed to humans at an earlier age. However, its large disadvantage is that these hand reared birds may be imprinted onto their human handlers and therefore were once thought to be less suitable for later breeding than parent-reared birds.

Imprinting has several criteria:

*A sensitive or critical period during which imprinting may occur.* This will vary from species to species. For example, if young sparrow-hawks are removed from the nest between one and eight days after hatching, they become tame and accept man as a surrogate sexual companion. If removed at 10-14 days, they only accept man as a surrogate mate if given a great deal of exposure to human company, but they will not respond to him sexually. After 20 days the young sparrow-hawks will not accept man as either a surrogate sexual partner or a surrogate parent. In parrots, it is felt that imprinting was only a problem if a bird continues to be handled after it is self feeding.

*The imprinted individual is preferred to all the others.* Young birds which have been hand-reared and placed with foster parents or even their own parents are likely to reject them. Sometimes this can have disastrous results and the parents may kill the aggressive young.

*Imprinting seems, generally, to be irreversible.* A bird not socialised with yung of its own kind during the first year will almost certainly be irreversibly be imprinted upon its human foster parent. It has been suggested that the reversal of imprinting to humans can be achieved by isolating the bird from sight of humans and pairing it with a normally imprinted bird. If, however, reversal of imprinting is not possible, artificial insemination may be of some use in some species. Dr Greg Harrison has had a successful artificial insemination in an Amazon parrot in Florida, so it may be possible with some of our aviary birds.

Returning to the parents:

In endangered species, trustworthiness of parents can be tested by giving them eggs of common species to incubate and raised. If they are responsible parents then the young can be placed after the last clutch is removed.

Foster-rearing:

Common species can be used as foster parents. This is used widely in parrot and finch aviculture and is especially of use in propagation of endangered species.

The following list is a general guide to summarise steps to aid in the prevention of abnormal reproductive behaviour.

- Where practicable, allow parrots to select their mates prior to the onset of puberty. Always be prepared to intervene in cases where the partners seem incompatible.
- Provide a wide range of attractive nest sites.
- Provide attractive nesting material but not in excessive quantities.
- Keep gregarious birds in colonies or within sight and sound of others of the same species.
- Provide adequate and suitable food.
- Keep disturbances down to a minimum. Never inspect nests unless you have a good reason for believing something has gone wrong, otherwise you may induce in the parent a feeling of insecurity in an otherwise satisfactory nest site. An alternative is to establish a daily routine of inspection at the same time each day.
- If possible, feeding watering and cleaning should be done at the same time each day since birds become accustomed to a routine and may be disturbed if this routine is not adhered to. They are also suspicious of something different, and even strange food and water containers may cause a sharp drop in consumption for a short period.
- When moving around birds be slow, deliberate and don't make loud sounds as the birds are easily frightened by unaccustomed movement or sound. This is particularly important for visitors to your aviary, since you are all aware that the birds soon become accustomed to your presence around the aviary.

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