Fostering parrot eggs: practicalities and ethics

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Sooner or later every breeder will be faced with the dilemma of what to do with eggs that the female (or pair) cannot, or will not, incubate. What are the options? The most obvious solution is to place them in an incubator -- but not everyone lives in an area where the power supply is reliable and, even if it is, hand-rearing the resultant chicks from the egg is never easy. Some breeders have used bantams or pigeons with success to hatch eggs -- but this strategy comes with the risk of infections from such birds.

Whichever species you keep, fostering eggs when an emergency occurs might be a better option than using an incubator or non-psittacine birds. This is because it can be difficult to hatch some eggs from day one; also, in an incubator, getting the humidity right can be a problem which most incubating birds do not experience. If the humidity is incorrect the chicks might be malpositioned within the egg or fail to hatch because it is too dry. Or the chick might hatch in a dehydrated condition and die son after.

The specialist breeder has a big advantage. Fostering eggs is easy if you have the same species with eggs at the same stage of incubation. If not, there are several factors to take into account, which means you need to know the habits of the species and of that particular female.

My experience of fostering eggs relates only to parrots. I know, from working with many pairs of Eclectus that a female will sit only one or two days past the incubation period of 28 days, then she destroys the eggs. When fostering eggs to a nest that contains only infertile eggs, this must be taken into account. It might be necessary to remove the eggs to another female or to an incubator to ensure the eggs are not destroyed.

Amazon parrots are quite different. They will usually sit well past the incubation period. I have never forgotten an extraordinary happening with a Yellow-crowned Amazon (*Amazona ochrocephala*). A pair of closely-related Yellow-shouldered Amazons (*A.barbadensis*), an endangered species, destroyed their first clutch so the three eggs of the second clutch were transferred to an incubator. The female Yellow-shouldered had laid the first egg on June 1 -- late in the year for Amazons. Only the Yellow-crowned had eggs at that time, the first laid on May 10. The clutch was infertile. I left the eggs in the nest in the optimistic hope that the female would still be incubating when the Yellow-shouldered eggs were due to hatch.

On June 25, when the first *barbadensis* egg started to pip in the incubator, I placed the pipping egg in the nest of the Yellow-crowned. She had then be sitting for forty-seven days! (The incubation period is about 27 days.) It hatched the next day. The chick was fed! When the other two eggs hatched they were also transferred to her nest. The pair reared two and the third chick was hand-reared from the age of four weeks.

This was a truly unusual experience because very few female parrots would sit for 20 days over the normal incubation period. I had been lucky! Most species will not incubate for more than one week past the due date.

What happens if the only foster parent available is of a very different species and the eggs are of a much larger size? This is not predictable because every female is an individual. In my experience, however, most females will sit on eggs which are much larger than their own. I suspect, however, that much smaller eggs might be ignored.

I discovered that placing a large egg in a nest can be very useful in thwarting the bad habit of egg-breaking. This is not uncommon in Blue-throated Conures (*Pyrrhura cruentata*). But if I put an unwanted infertile and much larger egg of an Amazon in the nest, this did not occur! I cannot explain why but it is worth a try with an egg-breaking pair!

Another factor to consider is how many eggs a female can incubate? This depends on the normal clutch size. The Grey Parrot has an average clutch size of three. A female would accept at least one more egg, and quite probably two, provided that they were added to her clutch while she was still laying. After the clutch is complete, adding more eggs is likely to be successful only if the same number of infertile or otherwise unhatchable eggs are removed.

However, there is another factor to consider. The success of

manipulating clutches depends largely on how close your relationship is with your birds. If you rarely inspect a nest-box when a female is incubating and you do not spend a lot of time around your birds, even opening the inspection door of the nest-box could create a disturbance.

If your birds are used to frequent nest inspections, they are much more likely to accept what happens after the nest-box door is opened. The most useful tip I can give is to learn at what time of day a female leaves the nest, and to take advantage of this time to make any changes. To learn this secret, a nest-box camera is invaluable.

If you transfer eggs of a different species, you must be prepared to hand-rear the young if the female will not accept them. Some females will feed a chick which is different from her own vocally and in behaviour. Some will rear totally different species to independence. Others will not.

In the breeding centre at Palmitos Park, Gran Canaria, I fostered the eggs of Golden (Queen of Bavaria's Conures) to Double Yellow-headed Amazons (*Amazona oratrix*) in 1991. The Amazons reared the young to independence. I was quite nervous about their reaction when their all-yellow young left the nest, thus I set up a camera with a monitor in my house to observe their behaviour. I need not have worried. This pair laid infertile eggs, thus had no experience in rearing their own young.

In 1992 this pair reared two Yellow-shouldered Amazons and one Queen of Bavaria's Conure in the same nest. This conure was among the group

of young Queen of Bavaria's that went to Palmitos Park as part of a group of young birds of this species that were exhibited in one aviary. Before that the young were kept as a group in the breeding centre.

At the September 2014 International Parrot Convention in Tenerife Rudolf Christian from Germany described how his pair of Double Yellow-heads reared Major Mitchell's Cockatoos to independence. I find this truly amazing because the behaviour, especially food soliciting and vocalisations, are entirely different in cockatoo chicks. It would be interesting to know if this pair of Amazons had ever reared young of their own. I guess not because experience of chicks of their own species might have made them reject cockatoo chicks.

One breeder fostered an egg of a Blue-fronted Amazon to the nest of a pair of Grey Parrots. The resulting chick was reared to independence. The female Grey did not (unusually) allow the male to enter the nest-box. Nevertheless, the male Grey accepted the Amazon chick when it left the nest. The breeder, Cyril Hales, wrote that he had never heard of African Greys rearing Amazons before and put it down to the fact that the two pairs had been close to each other for five years and the female Grey would have heard the sounds of the Amazon chicks. At the time the Amazons were rearing two chicks of their own. The third egg was fostered because it was laid ten days after the second egg. However, the breeder wrote that the young Amazon "seems slightly confused as to what it is and only makes minor noises, but not that of the Blue-front or the Grey" (Hales, 2001).

This brings me to a totally different aspect. Is it advisable or is it morally correct to allow parrots to be reared by totally different species? In 1988 when I was curator of birds at Loro Parque, Tenerife, I presented a paper on breeding parrots at a meeting in Curitiba, Brazil. Most of those attending were ornithologists and scientists and most were horrified when I described fostering eggs to be reared by different parrot species. Were they right?

At that time fostering was a means to an end and that end was to rear as many young of rare parrot species as possible. How my views have changed during the intervening years! Today I believe that what matters most is to produce healthy young whose quality of life and life experience is in no way compromised by the rearing method -- and this includes fostering and hand-rearing.

If young are reared by a different species -- and that includes hand-rearing by man -- they need to be socialised with their own species immediately they are independent. Because it is not possible to place them back with their parents, or with other adults, placing them in a sizeable aviary with other young birds of their own species or of the same genus, is the only acceptable solution, in my opinion. The ideal set-up would be two or three aviaries for young birds, the centre enclosures being the largest. When removed from their foster parents (or parents) the young would be placed on their own next to a group of immature birds. When the youngest group were confident and eating well on their own,

they could be introduced to the larger aviary, if it contained the same or a closely related species.

Whether fostered or parent-reared, young birds might at first be bullied by older youngsters and might not get enough food. Several feeding places helps to avoid this.

If they do not learn from others the normal behaviour and vocalisations of their own kind, they will be useless for breeding as they will probably relate only to the species that reared them. This even happens in the wild. In Australia it sometimes happens that a Scaly-breasted Lorikeet is brought up by Rainbow Lorikeets -- probably because the larger Rainbows took over the Scaly-breasts nest and actually hatched the egg they found there, as well as their own. When the Scaly-breast fledges it associates only with Rainbows and eventually breeds with one. I believe that this is the origin of Rainbow x Scaly-breast hybrids that are sometimes seen in the wild. Likewise, hybrids between Galahs and Bare-eyed Cockatoos are also occasionally seen, no doubt for the same reason.

However, for a captive parrot not reared by its own species the result is much more serious. It does not recognise its own kind, and it will probably be shunned because behaviourally and vocally it is different. This is why a single chick should not be fostered to a species of another genus. I suspect the Queen of Bavaria's Conures mentioned above might not have suffered any long-term effects because there were three of them and they could be integrated into an aviary with a group of their own

species.

It would be interesting to hear from other breeders about their experiences when breeding with birds that were fostered when young.

(In a box?)

I believe that most breeders under-estimate the value of leaving young parrots with their parents for a long period. Where it is possible, it is greatly beneficial to the young as they learn so much from their parents and this surely increased the likelihood of them becoming good parents in due course. It is not always an option, due to aggression on the part of one or both parents. However, often this aggression is due to a breeding space that is too small. This is often due to the breeder's desire to pack in as many breeding pairs as possible, rather than give priority to larger aviaries and a good quality of life for the parrots.

Observing a parrot family group over a period of months, rather than several weeks, gives the breeder a lot of pleasure! The interactions between the family members are often very touching or entertaining. Young birds are very playful so the aviary should contain swings and other items to keep them occupied, as well as a regular and frequent supply of fresh-cut branches.

Yellow-shouldered Amazon (Amazona barbadensis) that was brought up with and by Yellow-crowned Amazons (A.ochrocephala).

Reference cited

Hales, C., 2001, Is that my chick? The Amazona Society UK magazine, 10 (4).