

The Dangers of Stunting in Handfed Psittacines

By EB Cravens

The accepted practice of handfeeding parrot chicks in order to make them into social house pets has a sobering down side to it.

There are quite a few undersized pet psittacines coming on the market these days so buyers need to beware!

A vast majority of these are incubator-hatched babies fed from 'day one.' Large macaws are the most common, but also cockatoos, amazons, and the occasional conure. Truly parrot breeders, pet stores and the buying public need to concentrate to stop this growing problem.

With the advent of so many popular books on incubation methods and neonate husbandry, there is an increasing number of beginning aviculturists who are rushing out to buy themselves an incubator so that they may take the eggs away from their breeding hens and hatch and feed the chicks artificially. In some cases, this works out fine, but where the novice reads the guidebook less than thoroughly, or where corners are cut in the handfeeding process, the results can often be malnourished, undersized, stunted parrot babies.

The Natural Method

All expert aviculturists know that the best possible start to be given a domestically-hatched psittacine chick is to be fed by its parents for at least 21 to 30 days. At that stage, the critical internal formation of the bird has climaxed and the bird's body growth begins to accelerate at a great rate. Eyes are open and well-formed without the stress of too much early light. Brain, lungs, kidneys, and liver are all developed. Immune system resistance to threats is well taken care of by the parents' regurgitation of natural flora.

Chicks fed by humans from day one incubator hatching have slower growth curves, and if adequate steps are not taken, the parrot may never recover full development. In addition, if a beginner does not keep daily weight charts and compare them with professional data, he or she may not even know that the baby bird is undersized and malnourished. Until one has fed many chicks of a certain species, one cannot know what is an optimum growth rate.

Much of the trend to pulling eggs and buying an incubator comes from breeders too inexperienced, or too impatient to teach their hens to set well, hatch, and feed their chicks. Young parrot pairs who make mistakes their first time or two as 'teenage' breeders are labeled as 'incompetent', and turned into egg factories, while the breeder dooms himself to round-the-clock feedings and one-sided pets totally imprinted on humans. Many people are trying to breed young parrots well before their optimal breeding age, but that is another story.

I received a call recently from a man who wanted to buy an incubator to hatch his sun conure chicks because the 18-month old hen was making mistakes. I mean, sun conures are excellent, prolific caring parents!! There is absolutely no reason to incubate sun eggs from a healthy experienced pair of birds.

The reason one sees so many stunted macaw pets is that keepers do not run enough nutritious formula calories through the birds to develop full-sized parrots. Crops are incompletely filled, allowed to empty over and over again between too-long feeding intervals, and birds are forced on to 4, 6, 8, and 12 hour schedules prematurely. Some keepers who insist on getting a full-night's sleep, leave babies with empty crops for 1½ to 2 hours every morning for weeks. Add to that the times the bird empties and goes 15-30 minutes before being re-fed and you have some 2-4 hours empty crop 'down time' each day. Over an 8-12 week handfeeding period that can result in a stunted bird.

So Many Stunted Hyacinths

Furthermore, many aviculturists who have fed a few blue and gold or greenwing macaws assume that they have the know-how to handfeed and raise a Hyacinthine macaw. When the larger Hyacinthine is fed, raised and weaned much like its smaller cousins, it turns out 10-15% undersized. Just go to the bird marts and look at the hyacinths often offered for sale—huge heads, huge feet, small chest and poorly muscled. Hyacinthine nutritional needs are different. Many of the commercial formulas on the market need to be fortified in the home with say, macadamia nuts crushed and ground, for optimum growth as the result. We had raised dozens of blue and golds, scarlets, etc. before attempting our first hyacinthine, yet we still had phone numbers of four hyacinthine experts to call for advice... and did we use them! 'Baby Huey' turned out huge, gentle, beautiful, and able to fly, but it was the help we received in consultation that made the difference.

A good rule is if you have not raised a baby or more of a certain species, then ask for help and advice from another breeder experienced with that species.

Handfed Parakeet Species

Stunting of captive chicks is particularly prevalent in handfed parakeet species which in the wild are egg laid, hatched, fed, and fledged during a brief season with a limited abundant food supply. Princess of Wales, Neophemas, Amboina Kings, small lorikeets, and pocket parrots all fit into this category. In nature, the season moves in, and boom, boom, boom, the chicks are born, weaned, and gone from the nest. They attain optimum body size because of the constant supply of food packed into their crops day and night by parents.

I have raised Princess Parakeets by hand on occasion over the years and have yet to accomplish an eight hour night's sleep with this species because the chicks empty far sooner right up until they begin fighting the syringe to wean. What's more, it was only after realizing that I need to be feeding clean sterile food upon clean sterile food (crop

90% empty) round the clock with Princess that I began to get weaned fledglings from handfeeding which had the same full size as the parent-raised chicks my pairs raised their last clutch of the season. My 1997 Amboina King babies are much the same. They grow *fast* and they process a full crop quickly and they start fledging activity weeks before the slower-growing Amazons and cockatoos. To keep them full round the clock means setting the alarm every night—sometimes at five and seven-hour intervals. Such practices are often necessary to avoid stunting...

If a breeder absolutely must have an eight or ten hour break in feeding routine for a chick who needs to be filled more often, the best procedure is to anticipate the long night, etc. and during the day feed the birds every five or six hours, keeping them full and essentially adding one extra feeding to the daytime hours. Chicks treated like this will not be as hungry at night. The caloric intake is the same, it is only weighted to the a.m. feeding. When a feeding is missed, the next day the chicks will empty very quickly and will need to be fed again two or three hours later.

Mimicking Natural Behaviors

All such methods are aimed at mimicking the behavior of wild parrots who will keep their chicks full of food—as long as the food supply is available. Optimal breeding season is geared to the abundance of the natural foods parrots feed their chicks. It goes without saying that any handfeeder who chooses to feed fresh clean formula on top of formula in the last 10% of the crop, needs to be extra careful in hygiene practices. But in ten years we have never developed a sour crop in any of our babies. It is my belief that the concept of letting the crop empty in-between every feeding is outdated aviculture. Mistakes made with commercial baby formula gruels can also cause stunting.

Many novices mix their food *too thin*. It fills up a chick's crop but does not provide adequate nourishment. Formulas should be mixed so that they draw slowly up into a syringe, or pour off of a spoon thickly but not in gobs. Poorly mixed gruel can also cause problems because it dries out a chick and becomes indigestible. Any chick droppings which show grainy undigested substance are suspect. We always add Spirulina and often fresh papaya pulp or mashed apple to formula to provide green nourishment and raw enzymes not available in processed baby formula powders.

It is no surprise that field studies of crop contents show that many parrots feed an extremely 'green' regurgitate to chicks in the first several days after they hatch. Our amazon, conure, and parakeet pairs always seek our fresh greens, celery, buds, and such on the first days after the hatch. Incubator chicks, too need such green food. Where green juices are not available, use spirulina or wheatgrass powder.

Recognizing a Stunted Parrot

So how does one go about recognizing a stunted baby handfed parrot? Especially for this article, I talked with expert aviculturist Dale R. Thompson. He indicated that the malnourished chick will have very red skin—not shiny, pudgy, and healthy looking. "Normal skin will billow back if gently pinched," Thompson explained. "Stunted skin does not rebound. Dehydration is the first problem."

In macaws, one sees a body out of proportion with large head and feet. Amazons will have a large head and a nob where the cere develops—this is early skull malformation. "Many handfed black palm cockatoos have this nob," Thompson said, "It is a sign of poor feeding." He added that it is the belief of experts that such birds will grow into adults but will have brain damage and in several generations of stunted babies, pelvic problems will begin to show. Another sign of stunting in macaws is feathers on the top of the head growing in swirls or like a 'cowlick.'

I recently went to a friend's house where there was a new incubator. His first two chicks (Moluccan and Blue & Gold) were both underfed, developing stunted with turned-in toes and feet. At 14 days, they were very undersized. Nutrition, feeding amount, and schedule were all optimized to a professional level and daily weight charts were kept. I am happy to say the birds recouped their early losses and grew excellently.

Another sign of malnourishment in parrot chicks is acute hunger anxiety and noisy chicks. Well-fed babies will sleep quietly after feeding. If a chick is begging, it is for a reason! When a parrot baby keeps up noisy frantic begging even after being filled up, it is a sign the chick was allowed to get too empty. The begging will not stop until some of the new food is digested. This is a signal to increase the amount of food or frequency of feeding.

Other causes of stunting, according to Thompson are too-high temperature of the babies caused by the brooder or the nursery climate. Formula too high in protein can cause this also. It can create a hyperactive baby and one that can literally 'burn up' and weaken an internal organ with heat by the time it grows to adulthood. This can be a problem in lories where the protein needs are less.

Conclusions

So it can be seen that stunting in handfed psittacines may be traced to many different causes. Guidelines which best avoid these failings are:

1. Train your breeding pairs to hatch and feed their own chicks at least 21 to 30 days, longer if possible for the last clutch of the season.
2. Concentrate your handfeeding in youngest chicks to keep empty crop 'down time' out of the equation, carefully feeding clean food on top of 10% full crop when

- necessary.
3. Study the wild parrot weaning/fledging periods for the species you keep, so that you neither force early weaning nor delay it. Species that fledge quickly need more nutritional input round the clock up to weaning.
 4. Get help when taking on a new species. The finest aviculturists share their expertise with conscientious beginners. Every time I take on a new species, I am again a novice!
 5. Until you have raised many babies of several genus, do not presume you can visually ascertain growth curves. Keep weight charts. They have the added advantage of early diagnosis of an upset stomach.
 6. Please think twice before you commit your hens' eggs to an incubator. Young mothers need time to learn to get it right. Be patient and prepare for the future.

A Real Accomplishment

It is my belief that the highest avicultural accomplishment is taking an unrelated pair of domestic-raised psittacines and teaching them to eventually raise one or two of their own chicks to weaning and fledging. I do not keep any **CITES I** endangered species and therefore, you could not GIVE me an incubator. I have plenty of friends who incubate all their most valuable eggs and feed them from day one. No thank you. I find the routine totally unchallenging, not to mention what this technique is doing to handfed parrot prices in the U.S. and the quality of breeder birds for the future.

As a prospective pet owner, learn to ask intelligent questions about the parrot you are considering. "Was it parent started?" is one of the first. Try to get a view of the baby's parents or healthy adults of the same species so you know what size the parrot should be. Stay away from any pet you see as 'lethargic' or 'dim-witted.' In talking with Sally Blanchard about this topic, she revealed that she has in the course of her behavioral work, encountered "somewhat retarded or undeveloped mentally" parrots who were not coincidentally stunted physically. Sally told me that "While these birds were often sweet, much of their pet potential had been compromised."

And finally, forward this article and spread the word. Stunting can be prevented. Aviculture's future babies will thank us.

With aloha, EB