The Fabulous Derbyan

(Psittacula derbiana)

by Lyrae Perry Corona, California

Derbyans are one of the larger members of the Psittacula family and are natives of the coniferous forests in the People's Republic of China. They are inhabitants of the mountainous areas of the Himalayas and tolerate the cold better than most of the other members of their genus.

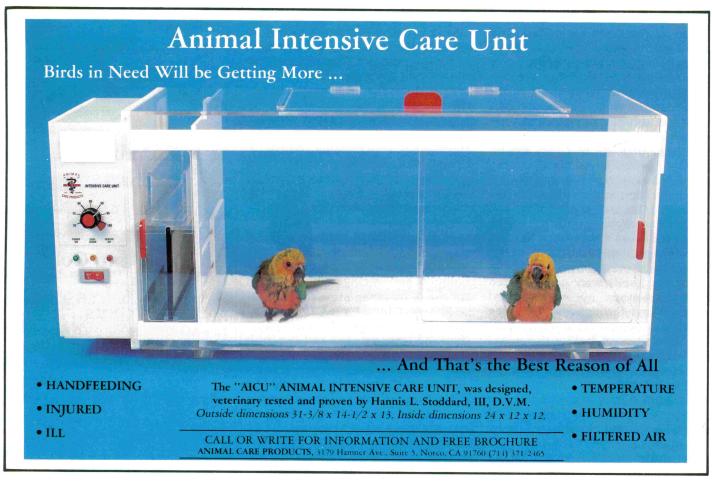
The coloration of the Derbyan parakeet is both subtle and striking. The entire breast is a beautiful dusty lilac; a color rarely seen in birds. The breast color of the adult female tends to be slightly pinker in comparison to the male. The majority of the body is a deep emerald green. The wings are also emerald green and are adorned with a large yellow-green patch. The central tail feathers are long and graceful, comprising one-half of the overall length of the bird. They are a deep cobalt blue on the dorsal side.



The feet are dark grey to black as are the legs. The upper part of the legs is covered with lilac colored feathers that look somewhat like bloomers. Both adult males and females have irridescent blue-green feathers on the crown and cheeks lending a jewellike quality to their appearance.

We have observed that the blue irridescence tends to be heavier on the faces of the hens; a characteristic noted in Moustache (P. alexandri sp.) hens as well.

Heavy, black, moustache-shaped markings traverse the lower cheeks and neck on both male and female Derbyans. Each has a heavy, black "eyebrow" marking just above the upper mandible. These markings appear with the first feathering of the baby Derbyans (also in Moustache



species) rather than being molted in at one year of age. This early facial coloration or marking is a peculiarity of those members of the *Psittacula* genus that display dimorphic bill coloration in adulthood. Also peculiar to only those *Psittacula* with dimorphic bills is the fact that they molt into adult plumage at 13 months, whereas the rest of the genus reaches adult coloration at 27 months, although some domestic Indian Ringnecks are coloring up even sooner.

Derbyans are, indeed, dimorphic as adults, i.e. you can tell the difference between the sexes visually. The males are easily distinguished from the hens by their coral red bills which are tipped in yellow. Both the upper and lower mandibles are black on the hens. All baby Derbyans hatch with a pale orange colored bill, which darkens considerably over a period of a few weeks to a deep orange. After the young birds are fully feathered out, their bills have turned to black. At approximately 13 months, the young males begin their adult molt and the bill begins to change back to coral red. The hens, too, go through an adult molt, but their bill remains black. With each successive year's molt, the coloration of the feathers intensifies, and the central tail feathers of the male birds grow slightly longer each year. Fertility in Derbyan males was thought to occur at 27 months. At this time, we haven't found any hard evidence to prove or disprove this theory. We have, instead, found that all of our domestically raised Psittacula males, including the Derbyans, are fertile at two years (second breeding season after hatch). The exact age of fertility in the hens is considerably more difficult to judge. However, the size and shell quality of our two-year-old hens tends to vary. The younger hens also tend to lay more eggs per clutch, but the fertility and hatch rates aren't as good as with older hens.

Visually, the Derbyan is about twice the size of an Indian Ringneck parakeet, and roughly the same size as an Alexandrine parakeet. The huge bill of the largest Alexandrine male (Psittacula e. magnirostris) makes them appear to be larger than the Derbyan, even so, the body weight and strength of the Derbyan is noticeably greater. This fact isn't immediately obvious until you have the opportunity (or maybe the necessity) to physically handle these birds.

Derbyans are quite a handful!

Until fairly recent times, Derbyans were extremely rare in captivity. Only a handful of aviculturists and zoos worldwide were fortunate enough to keep and breed this fantastic bird. The few birds that were the original breeding stock in the United States were beginning to show the difficulties associated with a limited gene pool during the latter part of the 1970s. Primiarly, these problems are decreasing production rates and smaller body size.

During President Nixon's term of office, diplomatic relations and trade agreements were begun between the People's Republic of China and the United States. Several pairs of Derbyan parakeets were sent to the United States as part of the cultural exchange.

Since the early 1980s, there have been a number of Derbyans available through quarantine. The infusion of new bloodlines is improving the established flocks tremendously. The increased numbers of available birds is helping to ensure that there will be a self-sustaining captive population. Production rates are much improved and breeders are able to provide larger, healthier birds to other breeders now.

We purchased our first pair of Derbyans in 1979. These particular birds were part of one of the first groups to come into the U.S.A. They were a mature, robust and beautiful pair. We counted ourselves among the fortunate!

These birds were placed in an aviary where we could observe them from our kitchen window. The breeding season came and we waited and watched. The male Derbyan courted and displayed for his hen. They mated numerous times all day long. That kitchen window garnered more viewing time than our television set! The mating rituals went on for several days at a time. There would be a rest period of several days to a couple of weeks, and then the male would begin displayin again. This continued throughout the summer months and into early fall (June through Sep-

It was three long years before our Derbyans finally decided to go to nest, and the patient waiting paid off. We have been rewarded by this pair of birds each season with two clutches of babies per year!

In the third year, our hen laid three eggs in the first clutch and hatched all

three. The babies were brought in for hand-feeding at ten days old. These babies appeared to be quite weak and our efforts to keep them alive were in vain. The eldest of the three babies survived for ten days, whereas the other two died on the fifth and sixth day after we brought them in. We were unable to determine the exact cause of the decline in health and subsequent death of these babies. However, the pair recycled in about 30 days, which is an average time period for members of this genus. Our hen again laid three eggs. These were hatched and the babies fed by the parents until they were 14 days old. We brought them in for handfeeding as well. In the second clutch, the babies were considerably larger and more robust than in the first clutch. In comparison, we found that the babies of the second clutch had larger heads and were more evenly proportioned than the first clutch babies. Since those early days, we've observed that it's not unusual at all for a hen to lay slightly smaller eggs on her first nesting. Often, the babies that hatch are not physically perfect and they may not survive.

Many long-time bird breeders warn novices not to expect the first clutch to survive — virgin breeders are expected to fail the first time because they need to "learn" how to be good parents. While it is true that a large percentage of virgin breeders fail to raise their first clutch, the reasons for failure have yet to be fully understood. Fortunately, we've found that all other clutches (even in the same season) develop normally.

Newly hatched Derbyans are covered with a soft, wispy, off-white colored down. This is lost almost immediately, leaving the babies naked. A sparse, hair-like down which is coarse and dry then grows in to a length of about 1" to 1-1/2". This hair-like down is somewhat like the "hair" on the Old Man cactus. At about ten days old, the Derbyan babies resemble warm, roly-poly dough-balls, and they just get bigger and rounder during the next five to ten days! Their otherwise pink skin appears to be speckled with black dots. These dots are the beginnings of the next stage of down feathers. This down will come in slowly and be thick, soft and a light grey. As this down emerges, the sweet, spicy odor of the babies intensifies, and the down will have a slightly oily feel. The "hair" is still present and drops

out slowly but continuously, and can be found on the babies even after their pinfeathers are open. As far as we know, the Derbyan is the only member of the Psittacula genus to have three different types of down feather growth. The thick, grey down feather is the only one of the three types that remains throughout adulthood. And it protects the Derbyan from the cold weather along the snowlines in the mountainous regions of their native habitat. Derbyan toes are not particularly susceptible to frostbite, so when the weather is freezing or we have an occasional snow (it really does happen here in southern California, too), these birds aren't distressed at all. On frosty mornings during the winter, it's necessary to break the ice in the water dishes for the smaller birds. But our Derbyans are usually up and playing with the "ice frisbees" before the sun rises.

From the time Derbyan babies are brought in at 14 days old until they are weaned and on the perch, they are a real joy to hand-feed. Some babies of other species take up to three days to get used to the new taste and texture of a hand-feeding formula and a new "mama." Not so with Derbyans. They gobble almost anything that's offered them from the outset. They don't seem to be too picky about the temperature either, and accept cooler formula than the body-temperature stuff the parent birds provide. They are so excited to see you when the next feeding time rolls around, it's hard to believe they are new arrivals in your "nestbox"!

Simply because they are so easy to please, there is a temptation to be a little lax in their care. Don't give in. They are still infants, and feeding cold or nutritionally inferior formula is just begging for trouble. All baby birds brought in for hand-feeding deserve the best of care. And the payoff is in bigger and healther birds. Choose to feed the best formula you can and be consistent in your feeding schedule.

You will want to keep the brooding box comfortably warm and not too hot for the babies. You'll find that it will be necessary to reduce the temperature in the brooder as the Derbyan babies become more feathered out. When you see them puffing, and their wings are drooping, you'll need to reduce the temperature slightly. This can be accomplished several ways depend-

ing on the type of brooder set-up you are using. Spend some time experimenting with your brooder set-ups before you put babies in them so you can choose the best method of temperature adjustment when necessary. Whenever you make any adjustment for temperature, be sure to recheck the babies' reactions every five minutes for the first 15 minutes. And it's a good idea to recheck every ten minutes for the next 30 minutes. even after you think you've got the temperature right because various brooding containers retain or radiate heat at different rates. The final temperature may not be realized for as long as 45 minutes after the last adjustment. Obviously, you wouldn't want to start this kind of a process unless you've got lots of time to spare. This procedure is recommended especially for brooders that utilize light bulbs for heat. Other heat sources aren't quite as touchy, but they should be watched closely as well. If you are using light bulbs, try to get the opaque green or blue they are much easier on the babies' eyes, and yours, too.

Whatever heat source you use, try to avoid extremes when raising and lowering the temperature. Gradual changes are less stressful for those valuable little charges.

You may also have to provide some source of humidity since light bulbs dry out tender baby skin. This can be accomplished by putting a jar of water in the brooder. Be sure it can't tip over, and the top must be covered so that moisture can escape but babies can't get in and drown. Here again, safety test before you put babies in.

You'll also find that the location of your brooder becomes important with respect to temperature controls as well. Choose an area that is draft-free and one where the room temperature is fairly constant both day and night.

Most of the newer isolette-type brooders have solved many of these problems for handfeeders. Unfortunately, they are expensive, and because of this have proved to be impractical for most operations. When we bring babies in for hand-feeding, each clutch is put in its own brooder box. This is done to reduce the possibility of transmission of bacterial infections (or worse) between babies. At any one time during the breeding season, we need about 15 to 20 brooder boxes. Only the youngest and most delicate

babies are put in the more expensive isolette brooder, and only if really necessary. As the babies grow older, they are moved out into our "regular" brooders.

We have found that a cardboard box works the best for brooding a clutch of babies. This is covered with a thick, terry cloth towel which holds enough heat in for the babies to be comfortable. While no other heat source is used, it is necessary to have more than one baby in the box. They huddle together and keep each other warm. We buy new boxes and line the bottom with plastic, tacking the plastic down to be sure the babies can't eat it or be tangled in it. A towel is folded to fit the bottom of the box and serves as a blotter for the droppings. This needs to be changed at least every feeding, and more often as the babies get older. When the clutch of babies is fully feathered, they are moved to a weaning cage and the box is thrown out. For the first few days, a wash cloth is put on the bottom of the weaning cage so that the babies have a familiar "ground" to stand on. It also provides tender feet with a little extra time to toughen up while the young birds learn to climb the wire and stand on the perch.

Each clutch also has its own set of hand-feeding equipment and utensils which are cleaned and disinfected after each feeding.

Until 1985, we had only limited space available for our aviaries so our Derbyans were housed in 4' wide x 8' long x 8' high flights. Ideally, the flights should be about 16 feet long. Our first pair was enclosed in 1/2" x 1/2" welded wire mesh. The wire hardware cloth was wrapped over each edge of the aviary panels to protect the wooden frames from being chewed up by the birds. Luckily, this pair was not inclined to chewing because it would be no trick at all for a Derbyan to slice through the 1/2" x 1/2" welded wire.

Our Derbyans are now kept in aviaries constructed with 1/2" x 1" welded wire, a safer choice by far. If you can afford it, an all metal aviary is the best choice. Just be sure to keep lots of perch material on hand for chewing.

Chewing is a normal and healthy activity for parrots of all kinds and it appears to be an essential component and activity of the breeding cycle. Increased chewing by a pair of birds is often a sign of the beginning of breeding season and should not be

discouraged but, instead, directed. Birds can be provided with wood to work on so that the damage to wooden aviary frames will be minimal.

Our aviaries are outfitted with all the 2 x 4 perches our Derbyans can chew! The perches are placed so the largest flat surface (the 4" side) is parallel to the ground, to provide the hens a larger and more stable surface to stand on during mating. We feel this may, in part, account for the high percentage of fertility in the eggs produced by our birds. We also like to stuff our aviaries with thoroughly washed eucalyptus branches, leaves and all. The birds really enjoy chewing up the mini-jungle.

Over the last several years, we've been using wooden boxes made of 1" x 12" planks, rather than the plywood boxes. They're a little more expensive, but we felt that even if we had to replace the boxes each year (and we usually do!), the costs were minimal in terms of the reward. Plank boxes insulate for noise, heat and cold better than plywood. The parents act more secure, and the baby Derbyans appear to be more comfortable during the warmer days.

We've tried several different types of nest boxes and have found that an 11" x 11" x 24" deep box (approximate inside dimensions) was preferred by our pairs. We put a 1/2" x 1" welded wire ladder down the inside of the box on one of the side walls. Placing a ladder on the side wall of the nestbox instead of at the entrance hole makes an easier and safer route in and out of the nestbox for both parents and babies.

Since Derbyans hatch closer to the summer months than the other members in the *Psittacula* genus, the build-up of heat in the boxes can be a problem. On hot days, we still go out and check on the babies periodically to make sure they aren't overheating.

A misting system over our aviaries helps reduce the temperature by as much as ten degrees throughout the aviary complex. But there have been days as hot as 116 °F and the misters were ineffective. On those few occasions, we had to bring the babies in for hand-feeding, even if they were younger than 14 days old.

By the time baby Derbyans are three and four weeks old, they are consuming about 25 to 35 cc of formula and this will increase over the next few weeks up to as much as 45 cc per baby per feeding! This is

quite a lot considering that, at the most, an Indian Ringneck the same age will hold only about 25 cc at the maximum. All babies are, of course, individuals and it will be necessary for the hand-feeder to adjust the volume of formula fed for each of the babies as they grow.

It is difficult to clearly explain just how to tell when a baby bird has been fed to capacity because each type of bird is slightly different. Sometimes. down feathers conceal the neck and crop, adding to the difficulty. Experience is still the best teacher and, if you don't have it yourself, seek out other hand-feeders and ask to observe them feed their babies. Take a good look (and feel, if possible) at how the filled crop is shaped. In general, there should be no bulge of formula going up the neck on the bird's right side. The formula should be completely contained within the crop. The danger here is that when the baby bird is overfed, the formula in the esophagus may spill over into the windpipe and lungs, drowning the baby. It is well known by bird breeders that the parent birds are able to pack those babies' crops with food items that hand-feeders wouldn't dare to stick in a formula, so looking at the volume of food the parent birds have stuffed in a baby's crop, to get an idea of how much you can put in, may or may not be helpful.

Because of their rarity in captivity and the shortage of breeding stock, most breeders historically did not release their hand-fed Derbyans to the pet market. In fact, only a select few individuals were lucky enough to purchase domestic young for breeding purposes. Aviculturists wanted to be able to firmly establish these birds in captivity. That dream is now possible to achieve. The Derbyan is being bred in larger numbers than ever before. Occasionally, there are a few available to the pet market. When hand-fed, the hens make as wonderful a pet as the males, and both talk.

Although imports have increased and Derbyans are being bred more frequently, they seem to be one of the few birds to actually increase in value. Their personality is wonderful when hand-fed and kept as a pet, and they are fascinating and beautiful aviary subjects. Those who say that the Derbyan is nothing more than an overgrown Moustache parakeet have never had the pleasure of really knowing them. They are, in fact, nothing short of fabulous!



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