## The Caique

by George A. Smith Peterborough, United Kingdom

We, the aviculturalist, get our drive and interest on many grounds. Some want a paying hobby. Others may do it for prestige of ownership by concentrating on rarities. All want to get our pairs to produce healthy offspring. Whatever the reasons, we all tend to have an acquisitive bias towards those forms that are difficult to acquire.

It should be as self-evident to the conservationist as it is to the psittaculturist, that species of birds that are the victims of frequent importation seldom are worth breeding. Is it not pointless breeding birds which no one wants to buy? Yet, it is highly important for those who are concerned with the conservation of parrots in the wild to encourage the breeding of non-endangered species, for this takes some of the pressure off the free-living populations.

Caiques do have the fortunate advantage that it is difficult to obtain four of the five forms, which, although certainly not endangered in the wild, are rare in collections and so continue to have sufficient value to encourage breeders.

The caique *Pionites* is a tropical parrot. It mainly lives in the enormous mass of open forest that grows over the wide catchment area of that mightiest of rivers, the Amazon. The woods in which it is distributed surround the river's tributaries from the base of the Andes (in Ecuador, Peru, Venezuela and Brazil) to run over the maximum width of the South American continent right to the Atlantic seaboard.

Contrary to general ornithological acceptance, and as the slides show, there is but one species of caique with five main variations of plumage. It is weak on the wing and must find it impossibly difficult to cross the large stretches of unfavorable territory such as thick forest or wide

rivers to intermingle populations. Therefore it should be obvious that, with such a large area to inhabit, the caique will vary in appearance in different locations.

The caiques that live to the north of the Amazon have black caps to the head, giving them the scientific name of *Melanocephala*, and the colloquial one of Black-headed Caiques. Whereas those on the southern side of the river have (as adults) orangered heads. It would be sensible to call this "lower" population the Apricotheaded Caique yet, sadly, the ornithologist called it *Leucogaster*— the White-bellied, which is perfectly silly for all the (adult) races have white underparts.

Scientific names, once given, remain fixed. So, as the caiques are one species, then (for this is the oldest name) all are *melanocephala*.

The one form that is subject to free importation is P.m. melanocephala, the Black-headed Caique, the nominate race. It is garishly handsome with orange thighs. Way over to the west, the color of its feathered trousers becomes lemon-yellow and this then is the Pallid Caique P.m. pallida. It is said that natural hybrids between the two races have been found in the wild. This may well be so, but I have found that, in captivity, a very small percentage of purebred Pallid Caiques show a mere tint of orange to their legs. Nowadays, the Pallid Caique is extremely uncommon in captivity. Twenty years ago it was the only race to be imported in other than fractional numbers. As far as I know, only two breeders in Europe, other than myself, bother to perpetuate it.

The Yellow-thighed Apricotheaded Caique *P.m. xanthomeria* comes from the foothills of the Andes. None have been legally imported since Ecuador and Colombia imposed absolute embargoes on

the export of birds. It was, therefore, fortunate that this race, unlike the Pallid Caique, had never contributed in any great numbers to the dealers' lists. Being uncommon, even then, some of the few that arrived in Europe were taken into the collections of serious breeders. Although they are bred in increasing numbers, the total European population cannot yet be much greater than a hundred individuals.

This Yellow-thighed Apricotheaded Caique is expected (for it inhabits a geographically, and therefore vegetationally, fragmented range) to be divided up into distinct populations. In consequence of this genetic isolation it might be expected to show some variation in appearance, and it does. Those that I have seen in Europe usually have lemon-yellow feathers to their thighs. Yet the two on the cover of Watchbird, (vol. XVII: No.2, 1990) have orange-yellow trousers. This illustrated pair, as have most of the European birds, has horn-colored bills. There is no pigmentation to the skin. Yet odd European specimens have masses of black "freckling" and, in these cases, the beak is heavily variegated with black. All the Yellowthighed Apricot-headed Caiques, despite their differences in skin and beak melanin, agree in having black legs and feet.

The Green-thighed Caique *P.m. leucogaster* is anything but uncommon in Brazil. It is far rarer in European psittaculture than is the Yellow-thighed Apricot-headed. Numbers are being built up at an ever increasing rate and, as yet, at least with myself, no inbreeding has been forthcoming. And inbreeding related birds, as we should know, is the guaranteed manner of obtaining color mutations. However, up to now this is the only race in which a color mutation (lutino) has been revealed.

The final geographical form, the Yellow-tailed Caique P.m. xanthurus has just been introduced to aviculture. It exactly resembles the Greenthighed Caique (flesh beak, nails, feet, green pantaloons) except that the entire tail is a bright lemon. The first that I saw (1980) was in the collection of a Brazilian who (as he restricted his enthusiasm to but rarely seen species) must have considered this race as quite uncommon. Since then, smuggled or otherwise illegally imported, individuals have turned up in France, Germany and

now England. The genetics governing the bright yellow tail ought to prove very interesting.

It has long seemed to me that the caique is undervalued as a pet bird. Among the reasons for this must be its lack of size. Large parrots (macaws, Amazon parrots, and cockatoos) often seem to have a disproportionate attraction. Another reason must be that (to my continual amazement) surprisingly few caiques are bred to be hand-reared. It cannot be that people find caiques unattractive in appearance. Although not garish, (many of us like discordantly-colored parrots), the basic dark green of the wings and back contrasts well with the big patches of orange, yellow, or black. Except for the cockatoos, caiques are unique parrots by having white underparts. In the juvenile state the belly and chest are pale yellow, and for the three that have apricot heads, black feathers partially fill the cap.

Once it becomes generally known what a pure delight a perfectly tame caique can be, extra incentive must be given to breeding the bird to satisfy the pet trade, for as a housepet, the caique can have few equals among parrots. Although highly intelligent, it cannot imitate human speech with the clarity of an African Grey. Yet it can acquire a large and ever-increasing vocabulary if it has a good tutor. Certainly it lacks the grandeur of a Moluccan cockatoo, but for charm it has no equal. It is confident, extroverted, willful, affectionate, utterly trusting and fearless.

One of the most pleasurable avicultural sights that I have seen was a large, enclosed aviary that was exclusively given to many pairs of Blackheaded Caiques. They were nesting, and the brazen exhibitionism of the colony with its continual activity, noise and color gave a sustained interest to the members of the public who were walking around that particular zoo.

However, caiques do breed well in cages. When held in open flights, they are not always at ease. Even the very tamest are likely to fly into a wild panic and smash into the wire when suddenly startled. As birds of the tree canopy in woodlands and open forest, they require an enclosure that is enshrouded on three sides and with the roof partially covered. They have little insulating down to the feathers, so in cold areas, will suffer from the winter.

The best accommodation would be large enough to have several pairs housed together with many natural and twigged branches to jump on, scramble through, chew at, and display from. That said, for the present, all mine are housed in stacks of commercially built cages, originally intended for lovebirds. These measure a meter (just over three feet) long by half a meter square. The nestboxes are highly important. They must be robust to withstand chewing, warm, dark and comfortable. No matter how they are housed, to a captive caique a good quality nest box is essential. Some of the day and the night, whether breeding or not, will be given to chewing away at this interior.

More than 20 years back, I decided to abandon the otherwise general practice of providing nesting material for any of my parrots. Mine (and caiques are a perfect example of why) now get boxes whose angled sides are internally equipped with screwed, thick "offcuts" of wood. The birds whittle these away to provide their nesting platform. If sufficient pieces of affixed chewable wood are present, the chewing parents will daily rain down a supply of fresh litter to absorb the nestlings' feces. In practice, with baby caiques which spend nine weeks in the nest, this is not generally sufficient. The nest has to be cleaned out occasionally, and clean wood shavings provided from elsewhere.

All my nest boxes are hung on the outside of the cage. This gives darkness to the interior and makes them accessible for inspection. By having the door to the back (for the boxes overhang), they are simple to clean out for a tray can be put underneath.

All perches should be (again as for all parrots) of variable widths. When cutting these, preference might be given to those that are big, rather than the narrow ones. The greater size gives the caiques more to destroy. It therefore helps to reduce the boredom of their captivity. These, from the width and coarseness of the bark, will keep down the nails. Caiques, like fig-parrots, do tend to suffer from overgrowth of nails in captivity. They will be abraided short if they are able to scramble along wide, coarse-barked branches.

Feeding could not be simpler. My caiques are all tame. The majority are hand-reared and so are utterly omnivorous. They eat everything and par-

take of anything from cooked meat to wild fruits. The basic diet is dried seed. Never is soaked seed fed to any of my birds for it is thought to be unnecessary (is not all food softened in the crop and proventriculus before it is passed onto the gizzard?). Soaking seed encourages candida and aflatoxicosis. All chopped fruit, the cubes of bread soaked in milk, and vegetables are sprinkled over with a proprietary vitamin/mineral powder. Grit has never yet been given although it has been said to be a necessity of life.

During the shortest days of the year, artificial light is provided. This must be unnecessary for, no matter how black it is outside, caiques may be heard about their business of chewing away at the nest box interior, feeding the chicks, bickering, and sometimes (when turning on the light) it has been found that they were nocturnally feeding at the fruit dishes.

Under these conditions my caiques breed the year round. With the limited time available to attend to them, and shortage of space, the 12 breeding pairs are kept in the same, small room. Originally every egg was taken when laid, to be artificially incubated and hand-reared. Under this highly-intensive system it was possible to regularly obtain 15 (the maximum has been 27) youngsters a year from each pair.

Fertility in these cages is high. (Only very young hens have laid eggs which did not develop an embryo.) It is difficult to present precise figures (for several experiments were taking place at any one time) but the hatch must be greater than eighty percent.

Nowadays all eggs are left with their parents. As my colony is purely experimental, every egg, like the chicks, is regularly weighed and generally "interfered" with. It is found that the tame and fearless caique can be formidable in defense of nest or chicks. On the other hand, some are almost cooperative during handling and inspection. These will walk out of the nest box door to perch on the hand of the examiner, and eat a proffered tid-bit, seemingly unconcerned with what is happening to the contents of their nest box.

It is not my belief that captive birds, bred for some generations in captivity, should ever be released back into the wild for rear of upsetting the natural "balance" between bird and environment. I know that once the stock that I have was taken captive, neither they, nor any of the progeny, will ever be set free. So there cannot be any biological "harm" in hybridizing the races together.

Experimental hybrids have been made between all the geographical races and different crosses between these. Yet for all that, there are "aesthetic" grounds for avoiding hybridization and "genetically polluting" what stocks we have. In consequence, any hybrid that I've bred and that is not needed for further study is given away as a pet.

The caique is a very demonstrative and sociable bird. There are considerable differences between individuals in their temperament. Some are perfect gentlemen. By selective breeding, it is possible to produce a strain with a greater submissiveness. Some are so naturally arrogant and so utterly fearless in defense of their cage or nest that it requires ingenuity to feed and attend to them when they are breeding.

To my observation, they noisily articulate, scramble along perches, jump up and down, blaze the eyes, pipe and push out their wings. All is done to signal messages to each other, for caiques have had to evolve some means of communicating with each other in the fairly dense undergrowth and foliage that they frequent. They have done this by shouting, wing-whirring and posturing. Although they scramble a lot and are highly active birds, they are not given to more than short flights. So it is quite wrong to keep them, as I presently do, confined to small areas with limited perching and space. The many that I have given away as pets to have a free range of the house are far better off than they would have been with me.

There is a vertical wing-lifting display accompanied by a disyllabic whistle that, to my present observation, seems to be restricted to males. Perhaps males tend to be more robust in appearance so there is a slight sexual dimorphism. However this is so slight and so far from absolute that surgical or chromosomal sexing is the only certain way of obtaining a true pair.

Sexual maturity may come earlier in a warm climate. I have never had a caique breed until it was well into its second year. The maximum number of eggs in one clutch was ten – from a Green-thighed Caique. They were

taken as laid and all hatched under artificial conditions. Such a quantity is highly abnormal. Three to four is general. This particular hen has never since laid more than four in a row. Young birds may lay a single egg. When they have, invariably it has proved to be infertile. On this colony system, housed in cages, fertile eggs are produced throught the year. However, the greater number of pairs will be sitting or rearing chicks during the spring and early summer. This suggests that reproduction in caiques, as with some other intertropical species, is still influenced by day length.

Though there is never a deficiency of food and, from the sounds made by the chicks, they are repeatedly fed throughout the day and night, chicks can die of starvation. Whether it occurs in the wild, I have yet to determine. But with four chicks (sometimes even with three), the smallest, the very last to hatch, invariably gets increasingly ignored by the feeding parents. It fails to grow as fast as its older siblings. Finally it begins to lose weight and will die. When this neglect is noticed, the chick is taken away for hand-rearing.

This wasting away is not as simple as insufficient food for if, experimentally, four chicks do hatch on the same day, then all get reared. Likewise if a group of four Benjamins(the smallest chicks) of the same approximate weight and size are put under the care of one pair, they live. Whereas had each been left in its own nest, all four would have perished. The aggravating wastage in the youngest chick can, therefore, be seen as being the consequence of the largest chicks demanding and getting most of the parents' feeding attention.

Apart from the inexcusable waste of potential life, avoiding such deaths allows me to test a theory. I am particularly interested in whether there is any relationship between egg size and the sex of the contained chick. If these smallest chicks, which tend to come from the smallest eggs, were to die before I could determine their gender, then this would be an aggravated loss, for they might prove to be more of one sex than of another.

Certainly in some birds, eggs are said to be sexually dimorphic. Big eggs tend to yield males and small eggs hens.

This cannot be so for parrots. For example, the second egg in those

species that normally lay but two is invariably smaller than the first. Yet with eclectus, or White-tailed Black Cockatoos, it has not been found (according to the figures that I have) that the chicks tend to be in "pigeon-pairs" (where the first tends towards being male and the second female). There is a much greater chance of either egg giving rise to one sex as much as the other.

In species of parrots that tend to lay larger clutches than two, the size of the egg tends to sequentially increase and then diminish so that the terminal egg is often the smallest and the "central" eggs the largest.

Bird sperm, contrary to mammalian sperm, does not determine sex. The bird's ovum (the yolk) gives gender to the chick. The sex is given before fertilization, let alone before the yolk is wrapped up in the oviduct with albumen and shell to make an egg.

Therefore the male yolks of several size-dimorphic birds are bigger than female yolks and the eggs differ in size (the male egg being the biggest). Might this then not apply to parrots?

On the face of it, "no" because the size of the highly fatty ovum might depend more on the nutrition of the hen. Nevertheless it still needs testing out.

It takes a long time to accumulate enough figures to test this mathematically. With my baby caiques (96), male chicks predominate (2.2:1). Perhaps this shows that (for we do not know the sex of chicks in wild nests) the good nutrition of captivity can "swing" the sexes of the chicks towards maleness). Presently it is found that the very smallest chick on hatching (usually the one from the last laid egg) tends to be female (nine out of 14 cases). If this consistently proves to be so, then the victims of infanticide by neglect are more likely to be female.

In wild importations of caiques, males preponderate. Is this determined by, as I believe but have no figures to prove, a differential mortality after capture, hen birds being more fatally subject to the stresses involved? Or are there more wild male caiques than hens? In waterfowl held in captivity, eggs tend to be smaller than they would be in the wild. If this discrepancy in size is nutritional, then captive parrots actually ought to lay larger eggs. And we come full circle - do larger parrot eggs tend to produce a disproportion of males? Oh, for more figures! •