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- · Secretary's chair
- Answering machine
- Hard drive for IBM compatible P.C.
- Copier with sorter, stapler, auto paper feed, and reducing/enlarging features

### Looking for donations from anywhere, U.S.A.:

• 2 FAX machines for Siskin Project

#### THANKS for the donations:

- Hendricks Printing, Irvine, CA Carton (1000) catalog envelopes 4 cartons, 500 ea., #10 envelopes
- M. Jean Hessler, Costa Mesa, CA Small utility cabinet
- Judy Casey, Visalia, CA
  2 plant/floral arrangements for front lobby
- Carol Inderrieden, Phoenix, AZ Ornamental banging macramé for office entrance

# Successful Breeding of the Plum-crowned Pionus in South Africa

by Dr. G.M. Smith Prieska, South Africa

The Plum-crowned Pionus (*Pionus tumultuous tumultuous)* is a very beautiful bird, and can be found in very few collections worldwide. As far as I could ascertain, only a handful of breeders have been able to report breeding activity.

In March of 1991, I noticed an advertisement in a local avicultural magazine for three hens of this species. After a few phone calls, I learned that a group of ten of these birds had been imported into this country some years back. Within a few days, five had succumbed to heat and high humidity. Of the remaining five, four turned out to be hens. The cock was killed later on by flying into the aviary's wire one night.

I bought the hens, and then launched a futile search worldwide in order to find some cocks. I expected this would be difficult, but I never envisioned that it would prove to be a fruitless venture. Rosemary Low informed me about the Pionus Breeders Association in the U.S.A., and, after contacting Bill Arbon, I learned that a few lone cocks were kept at a few facilities. Loro Parque had, for a few years, been searching for a hen for their lone cock. American legislation made it impossible (at the time at least) for an exchange of birds to be effected.

In the meantime, Tony Silva, then the curator of birds at Loro Parque, gave me some very valuable information about the natural habitat of the Plum-crowned Pionus stating it to be an extremely cold, high-altitude area with low humidity. I had to make a few adaptations, because the part of South Africa where I live is a semidesert environment of about 850 m (2,800 feet) elevation with searing hot summer days of between 35° and 43° centigrade (95° to 105°F) and extremely low humidity apart from our rainy months, which are March and April.

The birds were kept in a  $10 \ge 1 \ge 2 \le 100$  aviary, of which half is completely enclosed with brick walls, a fiberglass roof and an asbestos door. Adjacent trees and a high hedge blocks direct sunlight on 75% of the aviary for half of the day. An air-conditioner was installed in the closed section, for use in the summer months. A micro-mist spray system provides daily showers for 30 minutes. They enjoy it all the way.

While my worldwide search went on, I visited a parrot breeder in Johannesburg, Francois Meiring and his son Antonie. They have over 400 aviaries in their facility. A pair of Plum- crowned Pionus was shown to me, as well as a few hybrid offspring from the cock. At the time they only had a cock, it was paired to a maximiliani hen. Francois offered me a hybrid cock in order to have something, and I introduced him into the hens' aviary, a decision that I came to regret and which caused some selfreproach. After co-habitating peacefully for seven days, a commotion broke out one afternoon with all three hens attacking the cock, and, in the ensuing fracas, before my eyes, one hen was bitten by the cock and she flew straight into the wire and died instantly. I immediately removed the cock and housed him in an adjoining aviary. Neither of the hens ever showed any inclination towards him, and I noticed that a very strong bond existed between the two females.

I approached Francois again and made an offer for the pair of Plumcrowneds. Because his pair had been together for some years without showing any interest in each other or the nestbox, he magnanimously acceded — above petty selfishness as his pair were the only other specimens in this country.

In November 1991, I received them

and paired the cock up with one of my hens. At that time, the hen's color was very dull in comparison to the cock's. Within a few seconds, the hen was parading along the perch, stiffnecked, stiff-legged and with spread tail. Within 14 days, the hen's color had brightened up so that the two could not be differentiated anymore by appearance. I have since built two nest boxes into the back wall so that the bulk of both were housed in a closed chamber behind the back wall. above the air-conditioner. One is a standard nestbox with inner diameter of 25 x 25 x 50 cm, and the other the hollowed-out lower bulbous part, and lower part of the stem (80 cm in length) of the plant Agave americana. This type of nesting cavity is very popular locally for nearly all types of psittacines. It is fixed horizontally at a slight inclination.

After being together for 14 days, the hen started entering the standard nest box and also started excavating the first 25 cm of the horizontal nest's entrance. After some two months, she appeared to be losing interest in both. A friend suggested that the latter nest might be too dark inside, so I removed about 40 cm of the neck. Immediately she resumed excavating, and completely ignored the standard box. The pair really got on very well, always sitting together and feeding together. They have unlimited access to sunflower, and every afternoon receive a mixture of various boiled beans and peas, soaked wheat, barley, sorghum and buckwheat. Peanuts, frozen corn and green peas, oranges, apple, spinach, beetroot, grapes, watermelon, muskmelon and pomegranate are fed as available. They relish pomegranate, grapes and both types of melon. Pecan nuts are offered as treats.

On September 10th, 1992, when doing nest inspection and removing some chewed-off debris, a bloodstained egg was discovered, completely buried in the debris. I covered it again with the top showing to remind the hen of its presence. On the 12th, the second egg was found, and the pair was seen copulating at 17h00, a very noiseless affair with soft sounds produced, with the cock balancing himself by holding on to the side wire with his beak, and legs spread at about 150°. This was repeated often till the fourth egg was noticed on the 22nd. The third egg was noticed on the 17th. Commencement of incubation is uncertain as all eggs felt cool at the time of the production of the third egg, but the first egg then proved to be developing a vascular pattern on candling.

On the 11th of October, egg number two showed external pipping, and the following day eggs one and three . On the 13th, number two had hatched, with numbers one and three hatching on the 15th, and number four on the 18th. For the first 14 days the hen was brooding very tightly, only emerging in the morning and late afternoon for about four minutes. The babies were covered with a thick down from hatching, which turned even thicker with the appearance of the secondary down.

Their weight gain had been uninterrupted until they were about six weeks old, when number one was found one morning on the cement floor beneath the nesting cavity's entrance, fortunately making the 1.7 m (5-1/2 feet) drop without injury. The baby was re-introduced into the nest and an empty crop was noted. The same happened the following day. I had had a thick piece of sponge laid on the floor the previous day. This happened repeatedly with the others following suit. With growing alarm I reviewed the complete flattening-off of their nearly linear weight-gain curve, and when on day 49 (from the first hatch) all four were found on the floor, I decided to remove them from the nest and commence hand feeding them. This was a most difficult decision, as I had been committed to letting the parents complete their rearing. I was convinced that the parents could not keep up with feeding their demanding clutch, and that the chicks might be moving to the entrance to await their parents return to be fed. This despite the provision of three large bowls of soft food daily.

Surprisingly, all four fed readily from the start, but then my nightmare started. From the very first day, delayed crop-emptying was noted in number one, and the next day it started vomiting, progressing rapidly to a state where even 2 ml of pure rehydration fluid (0,45% NaCl and 5% Dextrose) was not retained for more than ten seconds on the third day. From the initial detection of the problem, Mycostatin® (nystatin) was mixed with the food, but when it





Adult Plum-crowned Pionus, rare in aviculture, this species needs aviculturists' attention.



The Plum-crowned Pionus is seldom reproduced in captivity. These youngsters bred in South Africa by Dr. G.M. Smith are a delightful sight.

became evident on day three that the chick's condition had deteriorated very rapidly with a drop in mass from 240 g to 165 g, I realized that a bacterium or protozoan must be responsible. A crop lavage was performed and a sample dispatched to our regional (human) pathology laboratory. The same evening gram-positive cocci were reported on a gram-stain, and oral treatment with amoxicillin was started, and the chick isolated.

At this stage, subcutaneous injections of rehydration fluid had been initiated for fear of death due to dehydration. Fortunately, the chick survived for the next three days until a growth of Klebsiella pneumonia and an Enterobacter species was reported, both resistant to amoxicillin but sensitive to co-trimoxasole. At this stage, the chick's mass was down to 140 g. From the next day, a dramatic improvement was evident, and after five days all lost weight had been regained. Alas, a happy ending was not to be, for on the sixth day it developed a fulminant pneumonia, progressing to death within 12 hours. I am convinced that aspiration of the liquid food had been responsible. Two days later, number four developed the same problem of severe vomiting, but upon immediate treatment with co-trimoxasole the problem cleared within 24 hours. As it happened on a Saturday, no crop culture was done, but I believe it might have been the same organism responsible. It appears that, in at least the case of number one, the bacteria must have been contracted while still in the natural nest.

I have reared some 40 chicks this season but this problem occurred in only this species. It is possible that they are very susceptible to cropinfection and future clutches even in the nest will have to be carefully watched. It might prove worthwhile in future to obtain crop fluid for culture from all chicks at time intervals.

That was the last of the problems; the remaining chicks fledged at 60 days, and weaning and introduction into an aviary was uneventful.

It appears, from various personal communications, that some breeders of this species have achieved breeding success once, with no further attempts being made. It is hoped that these representatives of this beautiful species will continue to produce young.