

# Behavioral Changes In Feather Loss Syndrome Cockatoos

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**EDITOR'S NOTE:** In the Oct/Nov '84 issue of *Watchbird* page 24, Drs. Roskopf and Woerpel presented an excellent, scholarly article on Cockatoo Feather Loss Syndrome. The problem is serious enough to warrant another article, this time from the viewpoint of a handler and trainer of cockatoos.

Several years ago, I saw a case of feather loss syndrome (FLS), in a young Moluccan cockatoo. This was my first exposure to the feather loss syndrome. The owner told me that the bird was a feather plucker, yet it appeared distinctly different from the other feather plucking cockatoos with which I had worked. The bird lacked normal feathering all over the body, including the top of the head and face, as compared to the average feather plucker, which usually has normal feather growth in the crest and on the cheeks.

As time went on, I began hearing from cockatoo owners who described the condition in detail. Most of them felt that their birds were not receiving nutritionally complete diets, thus the feather growth problem. As more and more correspondence from the world over detailed the syndrome, I determined to learn what I could about this condition, which seems to affect many different species of cockatoos. Much of the information came from distressed cockatoo owners, who contacted me by mail. Some came from in-home consultations which I conduct upon appointment, and some from my own study of these cockatoos that I observed on a daily basis over a long term. The following information is a result of compiling studies of all of these birds and a comparison of them with their normal counterparts.

In the earliest stages of FLS, the cockatoos observed did not moult at the appropriate time. Normal moulting was delayed. The delayed moulting coupled with outward behavioral changes appeared to be the first signs of the syndrome. The two cockatoos that I kept over the long term went into my primary training program which concentrated on teaching the basic

behaviors (coming out of the cage, remaining on a bird stand for extended periods of time and stick and arm training).

Initially they progressed satisfactorily, on a par with other cockatoos I have tamed, gradually becoming calm and enjoying the freedom that liberty on an open stand affords. As time passed, however, both of the birds began to exhibit extreme nervousness when expected to leave the cage. The two birds were kept at different times and never came in contact with one another. If forced out of the cage and moved to the bird stand, the birds trembled, keeping their necks pressed into the shoulders, instead of extended to the full length. Normal cockatoos extend their necks and look around when moved from place to place. Over time, the trembling turned into tremors, resembling a nervous system disorder. Birds who once preferred the arm to the stick regressed back to the stick. This was not accompanied by an increase in biting, in fact, the two birds that I kept did not bite unless provoked, but they did seem unsteady on the arm as compared to the stick.

Preening behavior changed markedly. Normal preening activity modified until the birds were exceptionally careful not to pull out or displace any of their down feathers. The only feathers that were discarded were the tiny feathers of the chest and some of the small wing covert feathers. Occasionally the birds dropped one of the heavy wing or tail feathers. Upon examination, the discarded feathers had noticeable differences from the feathers dropped by normal cockatoos.

They lacked sheen (possibly from overpreening), and the feather barbs lacked cohesion. The quills were brittle and misshapen. The pointed tip of the quill, which normally is the narrowest part of the feather, was wide, extending beyond a narrow stricture in the quill. Quite often, the quill contained remnants of the vein that nourished the feather in its growth stages. In normal feathers, the vein recedes and dissipates once the feather

is fully grown. Sometimes there was a flaky black residue down the inside of the feather quill from end to end. None of the discarded feathers were replaced with normal ones.

Bathing activity also changed. Normal cockatoos love a bath, the more water the better. The birds who later showed definite symptoms of FLS, resisted bathing and did not preen water through their feathers when wetted.

I observed changes in the overall pattern of activity, such as play behavior. Normal cockatoos like to flap their wings. Even feather clipped birds exercise with ferocity at the first opportunity each day. They like to spin around on an open perch, sometimes hanging upside down, with wings fully extended, vocalizing loudly. Cockatoos who later showed signs of FLS sat quietly on their perch. They did not prance around, did not flap their wings, swing upside down or "shadow box." The only form of movement on the open stand was an occasional wing flap, some exaggerated foot stomping and defensive swaying. Both defensive swaying and foot stomping are practiced by normal cockatoos, but birds who later showed advanced symptoms of FLS eventually refrained from foot stomping completely. This is due to the birds' deteriorating sense of balance and appears to explain the affected birds' preference for confinement as opposed to liberty, and the diminishing attempts to jump and hop.

Another behavior common to all species of cockatoos is beak clattering. As with foot stomping, cockatoos who later showed obvious signs of FLS had diminished beak clattering behavior and eventually refrained from it completely.

Defensive swaying became the birds' primary response to all attention from the keeper, including eye contact.

Another change in normal behavior was the cockatoos' reaction to physical contact. The major complaint of pet owners I interviewed was that their once affectionate pet cockatoos no longer allowed themselves to be petted and stroked. This was correlated with the declining state of the remaining feathers which were sparsely distributed over the birds' bodies.

Cockatoos that had once remained comfortably on the arm while traveling from room to room became very unsteady on the arm, unable to maintain their balance even if given assistance. As time and the symptoms of FLS progressed, the birds became less and less handlable. They had an

obvious fear of falling. Large cages used to cage the birds had to be replaced with cages of smaller dimensions. The FLS cockatoos lived in a constant state of panic, no longer demonstrating the cocky attitude that they once had.

Overall physical appearance degenerated. When old feathers began to fall out, new feather growth was deformed. Twisted, misshapen quills grew to a length of no more than four inches and no normal feather barbs appeared. The beak matter grew quickly and abnormally. The lower mandible curved down and jutted far out from the facial mask. The upper mandible also overgrew into a hook, which made it difficult for the birds to crack seed. In some birds, large holes appeared in the upper and lower mandibles. The beak became so tender that dietary preferences changed as a result. Unable or unwilling to crack sunflower seed, the FLS cockatoos chose to eat large quantities of banana, papaya, melon, cooked yams and soft apples. Raw corn and peanuts, once favorite foods, were dropped to the cage bottom, uneaten. Water intake rose sharply.

Affected cockatoos had a change in vocal quality over a period of time. Birds who had once vocalized freely became quiet. The clear, ringing sound of their voices became rough and gritty.

My observations yielded the following conclusions. The initial symptoms of cockatoo feather loss syndrome are impaired moulting (often delayed), and a change in the overall pattern of behavior. Birds become less playful, less adventurous and less mischievous. Expressions of cockatoo personality, such as beak clattering and foot stomping, decrease and eventually extinguish. Preening increases from a routine practice into an almost incessant activity. Defensive swaying is the birds' major mode of dealing with attention from their keepers. Dietary preferences alter. Vocal quality and quantity change.

FLS does not appear to be easily transmitted, for many of the cockatoo owners with whom I have corresponded have reported that their other pet cockatoos remained unaffected, even when caged with birds who later showed signs of the syndrome.

Much more study is necessary for a better understanding of this devastating disease. Let us hope the studies continue and a cure is found as soon as possible. ●



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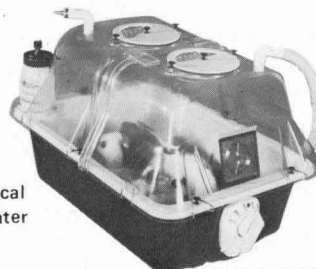
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