Notes on Lory Aggression, Diet and Housing

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Photo courtesy of authors

Aviary with 10 ft. sliding glass doors and vines growing inside.

Aggression

Having read several articles by other authors on colony selection of mates, Sharon Casmier placed three sexed female and three sexed male Goldie's Lorikeets together in a flight 7 ft. long, 6 ft. tall, and 4 ft. wide. This flight contained a number of perches, branches and separate feeding stations. The alpha pair bonded within weeks and their band numbers were recorded. Several days later one male was dead. Upon necropsy no bacteria or viruses were isolated.

Days later, a second male was found trapped by his wings in the cage wire. Even when Casmier entered the flight with wire cutters, these budgerigar-sized lorikeets continued to dive bomb and strike their victim. Luckily, she was able to save this male and decided to abandon any attempts at colony breeding or colony mate selection in the future.

It is critically important to remember that bonded or breeding pairs of lories can and will protect their territory with great vigor.

Sam Tucker and Robin Stockton, editors of the "International Loriinae Society Bulletin," recently published an article describing the loss of their Black-capped Lory hen, *L.l. erythrothorax,* due to aggression by the male.

Both birds were handfed, long term pets. The male was six years old and aggressive while the hen was two and a half years old and submissive. The birds had been placed side by side in separate cages for many months. The two birds were then brought into the house and caged together where they could be closely observed. The two had been together for over a month when the male became aggressive towards his owner during routine feeding chores.

All seemed to be going well between the two birds although the male continued to be territorial with his keeper. After four months of observation they were moved to their new outdoor flight which was 4 ft. wide, 10 ft. tall, and 8 ft. long. Although all of the above precautions were taken, the female was killed within two hours.

Such violence has been reported with other species of lories on numerous occasions A similar situation occurred with a pair of long term bonded Red Lories, *E.b. bornea,* owned by a local breeder.

She purchased these birds as a proven pair and, since they were not banded, it was assumed they were wild caughts. However, this could not be verified.

They had been obtained during the winter and caged in the house in a small cage, 3 ft. x 2 ft. x 2 ft., with a small nest box in which they slept together at night. No breeding attempts were made and no pair aggression noticed.

In mid-summer they were moved outdoors to a new flight (4 ft. x 4 ft x 5 ft.) with a large Z-style nest box attached. Shortly after, the hen was found injured and brought into the house and treated for foot wounds. It was thought she had caught a toenail in the cage wire.

While the hen was being treated the male became very aggressive towards his keeper and would strike, drawing blood when the bowls were changed during routine chores. This occurred numerous times making the servicing of his cage a dreaded and unpleasant task.

Once the hen had healed she was returned to the outdoor flight. The male was removed to a holding cage which was placed beside her. After several days he was re-introduced to the flight with his mate. A few days later she was found dead in the nest box. Necropsy showed massive trauma to the throat and neck area.

We have learned to take several precautions with lories. We observe behavior on a daily basis when servicing our birds. We are particularly concerned about abrupt behavior changes even in long term, proven pairs and are cautions when our lories are subjected to changes in their environment, especially when they are moved to a new flight or when a nest box is added.

It is important to understand that lories are easily bored and very excitable. Therefore, breeding birds should be provided with large flights and outside distractions so they can release pent up energy. Toys such as rings, chains, and ropes are very appropriate and lories enjoy them tremendously.

Consider age and temperament when introducing potential mates. Always identify the aggressive and submissive individuals. Cage the birds side by side before introducing the submissive bird to the flight. Place the aggressive bird in a small holding cage inside of the larger flight for several weeks. When conditions are right clip the wings of the aggressive bird and release it into the flight. This should be done when time permits close observation. The aggressor should be returned every evening to the small holding cage until the birds appear to be compatible.

Never attach a new nest box for the pair until they are relaxed in their new environment. The sight of a nest box could trigger aggression by an already aggressive male and allow him to trap an unwilling hen in the nest.

The same principle holds true for introducing young and inexperienced birds to older ones. Unfortunately, Casmier lost a five month old female Stella's Lorikeet, *Charmosyna,* to an eight month old male within three days of introduction.

She avoided a repeat of this recently with a newly purchased pair of young Musk Lorikeets, *Glossopsitta concinna*. In this case, the female, which was a year older than the male, was the aggressor. Casmier finally had to clip her wings to keep her from pursuing her intended mate. They did not engage in mutual preening, courtship, or feeding for an additional six months after introduction.

Aggression most frequently occurs when there is an age difference between young, handfed birds; we have never encountered it in adult wild caught lory pairs. In most cases, older birds are seen preening within hours of controlled introductions and, in one case, a pair of Red Lories produced fertile eggs within five weeks. However, caution is always advised. Lories have not earned their reputation without reason.

Diet

Forshaw noted that the ventriculus (gizzard) is not a very muscular organ in Loriinae. Thus, lories are physically unable to digest an all-seed diet. In addition, their tongues are structurally similar to those found in nectar-eating birds. Numerous observations of wild lories have established them as nectivores. Hopper and Burbridge (1979) found that they can harvest sufficient nectar to meet their daily nutritional needs within two to three hours. Pollen serves as the primary source of amino acids while nectar, which is their main food source, supplies them with most of their carbohydrates.

Not all loriinae require an all-nectar diet. Jurgen Bosch writes, "The contents of crops consist of pollen, nectar, small seeds and insects. The latter (mostly Homoptera) may be ingested either in the honeydew form or (in larval form) with fruit."

Rosemary Low divides lories into three main groups based upon their diet. Some lories are omnivorous, consuming many types of foods and insects in addition to some pollen and nectar. Many lories are primarily frugivorous birds relying manly upon fruits as well as nectar and pollen. Nectivorous lories, however, exist almost entirely on nectar. Many of these lories are considered to be delicate birds and are difficult to maintain in captivity.

Peter Odekerken describes how lories' dietary requirements affect their behavior. Due to their migratory habits, seeking out flowering districts, they may be observed in large numbers in an area for some weeks and then vanish.

However, the nutritional requirements of a complete diet for captive lories is not yet known. This is further complicated by the number of experimental diets in use today that are primarily based upon trial and error.

In fact, lories have been kept and bred while being fed entirely inappropriate diets on numerous occasions. Amazingly, Casmier's first pair of Red Lories, *E.B. bornea,* produced and raised several clutches on a seed diet occasionally supplemented with fruits. These birds did not receive any nectar. Some of these mistakes end up buried in the breeder's back yard! Fortunately, Casmier was enlightened and changed their diet. This particular pair has produced 36 clutches of young and are still alive today!

Our feeding strategy is simple and easy. We alternate feedings of Nekton-Lori and our own fruit mix that is made in a blender. Nekton-Lori was developed to meet the dietary needs of lories for finely ground pollen and carbohydrates similar to those found in flower nectar.

Our fruit mix varies seasonally and rarely contains the same ingredients. Summers are a favorite time since fresh produce is readily available. we have also planted many exotic fruit-producing trees and plants to supplement locally-produced fruits. Some of these plants are cold hardy; others are kept indoors or in the lory aviary that doubles as a greenhouse during the winter. A partial list of fruits that our lories receive includes: persimmons, figs, paw paw, mulberries, lingonberries, currants, gooseberries, passion fruits, kiwis, loquats, kumquats, pineapples, guavas, pomegranates, and papayas. These exotic fruits, combined with local berries and fruits, make an appealing, fresh, home-made fruit cocktail.

During the autumn and winter other foods are provided such as cranberries, yams, sweet potatoes, pumpkins, and frozen and canned fruit cocktails and berries. We also provide our birds with fresh edible flowers that we grow especially for them. Particular favorites are: nasturtiums, rose hips, carnations, pansies, johnny jump-ups, dahlias, fuchsias, cosmos, hibiscus, passion flower, bougainvillea, and several herbs.

A word of caution is necessary; never give your birds any flowers or fruits that have been sprayed with insecticides! Also some plants are toxic so investigate before offering flowers.

We will go on record as being "old fashioned" loriculturists who believe it is essential to our birds' health to feed as varied a diet as possible. To feed an inappropriate and boring diet, in order to eliminate liquid feces for the convenience of the owner, is the wrong approach to the problem. The breeder must accept lories for what they are or keep a species that is less messy. Neither of us sees any reason to experiment with the health of our lories at this late date. The "old fashioned" diet has served our birds very well and has kept them in perfect health, in one case, up to the ripe old age of 17 years.

Housing Lories

Lories are excellent aviary birds. The habits and requirements of lories necessitates different cage and aviary styles than seed-eating parrots. If you live in a mild climate, California style cages work well, and the birds can be maintained outside throughout the year without difficulty.

We both live in Washington State where we get an occasional winter with temperatures dropping into the teens for weeks at a time. Every other year or so, temperatures can drop to zero for several days or more, often with heavy winds. The low temperatures, plus overcast days and damp, rainy weather, requires careful thought about caging and breeding any species of parrot in an outdoor aviary.

When Casmier planned her lory aviary she wanted the ease of the California style aviaries in Washington State. She chose a greenhouse type building that could be opened up during the summer months.

The building is 40 ft. long and 14 ft. wide. The roof is constructed with corrugated fiberglass sheeting (clear, greenhouse strength) that allows natural lighting even on cloudy days. The back and sides are constructed with T1-11 sid-

ing. The unique feature of this building is the large sliding doors that are made of fiberglass sheeting. Each door is 10 ft. wide by 6 ft. tall and mounted on a track that allows them to be opened easily on warm winter and spring days.

On a sunny winter day the temperature can be 40°F outside and 60°F inside the aviary. The building can also be heated by a forced air oil furnace during cold spells that last for weeks at a time.

In the summer months the temperatures usually are in the 70s and 80s but they can reach the mid-90s for weeks on end. For that reason we installed a misting system consisting of a soaker hose that is suspended over the flight cages for the entire length of the building. This serves four purposes; it cools the building, cleans the cages, adds humidity to the dry air, and allows the birds to bathe. The spray does not reach the back two feet of the flight where the feeding stations and nest boxes are located.

The floor is covered with seven inches of sand and gravel that allows easy drainage to the outside of the building. It also permits quick cleaning by raking the gravel and hosing down both the cages and the floors at the same time. Additionally, the birds enjoy this activity immensely by flying in and out of the spray. They love their daily bath.

Individual flight cages are 7 ft. long, 3 ft. wide and 6 ft. high and are raised off the ground with concrete blocks. This provided sufficient space for raking the gravel under the cages and is quite sanitary since the birds are unable to retrieve any fruits, vegetables or flowers that have fallen through the bottom of their flights.

The flights are covered the Passion Flower *Passiflora caerulea* and Bougainvillea vines that form a lush cloud of green foliage with red and pink flowers.

The nest boxes are hung on the outside of the flights and are equipped with inspection doors. We use the L-shaped boot style nest box for most pairs. Nesting material primarily consists of shredded eucalyptus leaves, bark, and twigs. Most of the lories spend hours chewing and rearranging this material before nesting.

In the past we have successfully used standard cockatiel or conure nest boxes with white pine chips for nesting material but found that the boot style nest boxes allows for easier inspection. The eucalyptus nesting material provides the hen with something to chew on while she is incubating her eggs. In one particular case a hen that previously had plucked her chicks stopped this activity when provided with the eucalyptus nesting material.

Feeding stations are located at the back of each flight. These "stations" are rectangular boxes constructed of 1 in. x 1 in. wire that enclose the food and water bowls. A hole is cut above each bowl so the birds have free access to food and water but cannot tip the bowls. They are accessible from the outside by opening a small wire flap. This style of feeding station allows the bowls to be slipped into place from the outside without the birds escaping or attacking one's hands.

Note: Sharon Casmier is currently the studbook keeper for the Musk Lorikeet. She would like those who keep or breed this species to contact her at P.O. Box 850, Sumner, WA 98390