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Lories and Lorikeets in aviculture

by Raymond J. Jerome, M.D. Dallas, Texas

The terms "lories" and "lorikeets" are used interchangeably by most authors since the term "lorikeet" merely means "little lory". For purposes of simplicity, only the term "lory" will be used in this paper.

The family Loriidae are among the most beautiful, interesting, active and affectionate of all psittacines. This family is extremely large and represents about 1/6 of total world psittacine population. The family contains about 75 species. Anatomically, the lories differ from other psittacines, by possessing a brush tipped tongue with which they "lap" nectar and liquids like cats. They are excellent breeders; frequently having one clutch after another, yearly. They will often breed freely in rather limited enclosures and, if hand raised, often make excellent "talkers". These are some of the positive points which make lories excellent avicultural candidates.

Most of the negative points are mainly focused around the fact that these birds are fruit and nectar eaters. Because of their diet, they have a very liquid excrement which is expelled in a very messy projectile manner. This one characteristic, above all others, makes them very poor candidates for "house pets". Making a well balanced nectar mix for lories is time consuming and rather expensive project. The proper hygenic care of their cages and nectar containers also requires a good deal of time and effort. However, with good outside aviary facilities, the positive points in favor of working with these exciting birds far outweigh the negative points.

Besides their unbelievable brilliant colors, the intelligence, inquisiveness and mischieviousness of the lories are among their most attractive qualities. Their activities very closely resembly baby kittens at play. One can constantly observe them making up games to play, either individually or in groups. At times they may be seen lying flat on their back juggling a twig or rock with their feet. Frequently two of them incessantly wrestle or do cartwheels around a branch. Their natural courtship activity of bobbing and wing flapping is an exciting display to behold and is somewhat different for each species. I have even seen five of them line up and march in a straight line, like little toy soldiers, playing "follow the leader". The Dusky Lories will frequently strut around in a circle, like two sparring boxers, with

outstretched wings; looking very much like turkey gobblers in mating display. This is mentioned only to point out that lories are constantly involved in innumerable humorous or interesting antics which make them probably the most interesting and desirable of all aviary psittacines to own.

It is stated by Tivert and by Forshaw that, in the wild state, the food of lories consists of flower nectar, pollen, blossoms and leaf buds. However, from my personal observations and necessary conclusions from parasites which these birds host, they of necessity must also consume a fairly large amount of insects or other parasitic intermediate host such as insect larvae, worms or even snails. This assumption is made on the fact that a great number of wild caught lories, coming into this country through quarantine, have intestines grossly infested with tape worms. The tape worm obligatorily requires an intermediate host such as insect, worm or snail to complete its life cycle. Some authorities have speculated that this infestation is brought about by the lories accidently consuming an occasional insect while feeding on flowers. I believe that this is an erroneous conclusion and that these birds actively go in search for insects while they have young in the nest, in spite of abundance of other food sources. I have seen parent lories digging through the dirt on the aviary floors for hours in apparent search for insects which they voraciously consume as they find them; as well as eating the roaches and flies that occasionally enter their cages.

In sexing the *Loriidae*, monomorphism between the sexes is the rule and dimorphism is the exception. The dimorphic exceptions which come to mind are the red phase of the Stella's and Josephine's Lories in which one sex (reportedly, the female) has a yellow rump and the other sex has a red rump. However, in the melanistic (black) phase of the Stella's, both sexes have red rumps. Another genetic oddity in the melanistic phase of the Stella's is that, although the normal red pigment of the face and breast feathers are replaced with black feathers, the rump feathers of these melanistic birds retain their red pigment.

In the orange phase of the Dusky Lory, there is also a dimorphic difference in the sexes. The female has a silver-while rump and the male has a yellowish-rump.

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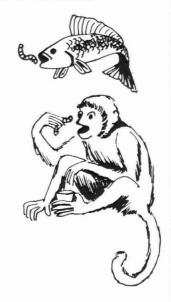
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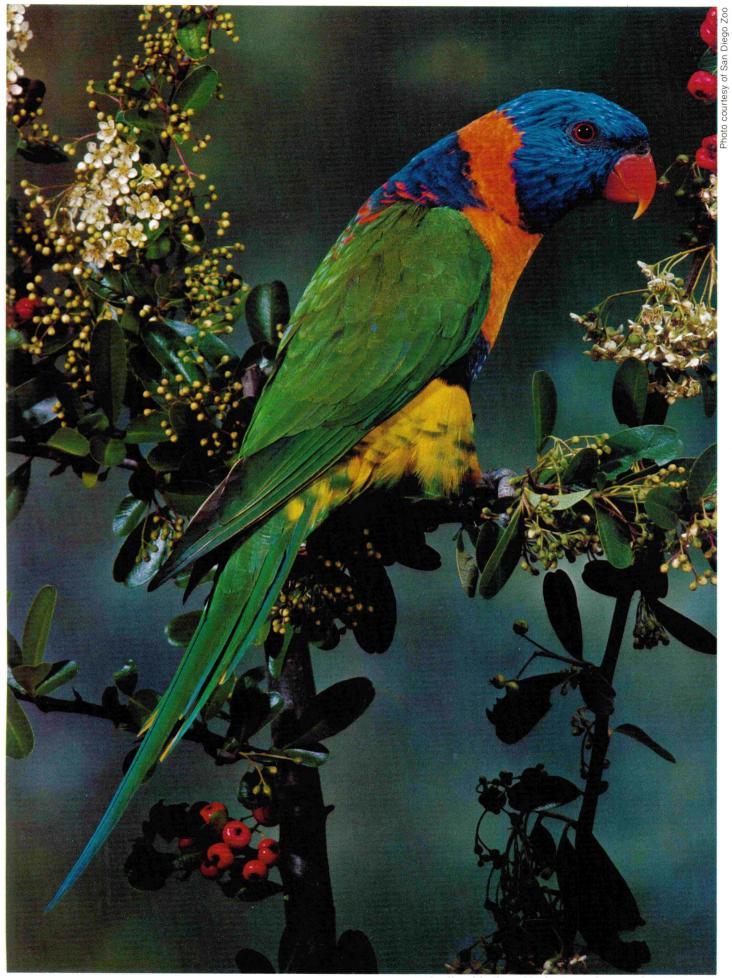
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Red-collared lorikeet, Trichoglossus haematodus rubritorquis.

However, this difference is more difficult to discern in the yellow phase of the Dusky for the rumps of the few I have seen are silver-white in the center and yellow-white in the periphery.

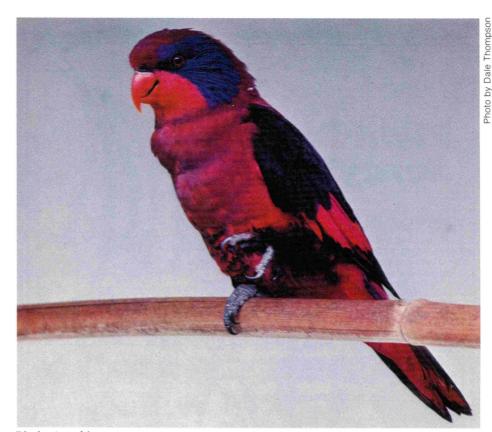
In the Edward's Lory, which is the yellow breasted variant of the Rainbow Lories, up until now, the dimorphic difference has been stated that the male may have a few orange feathers scattered among his yellow breast feathers whereas the female's breast feathers are all yellow. In my working with these birds, I have observed a much more striking difference between the sexes. I have found that the adult males have bright orange feathers on the lesser under wing-coverts, while the adult females have clear bright yellow lesser under wing-coverts. So far, the six young that I have raised this year have all had varying degrees of orange under their wings and I suspect that this color difference is only fully developed in adult plumage.

Many of the lories having an orange or horn colored beak in adulthood will have black beaks while immature. Therefore, any birds of these species having black coloration on their beaks are probably less than one year of age.

The "old wives' tale", still in popular belief among a great many bird breeders, is that, if two eggs are laid, the resulting nestmates will invariably be one male and one famale. This statement is definitely **NOT** true! This has been proven by recent laparoscopic studies. There will, however, nearly always be a difference in the size of the two nestmates. This difference, I believe, may well be attributable to hatching dates and the first bird getting more food. This difference in size will frequently equilibrate toward the end of the first year, if good diet has been provided for both birds.

It has been said that lories only lay two eggs per clutch. I know of one pair of mollucan red lories that laid four eggs in one clutch and all four eggs hatched.

A well balanced diet is probably the most important part of successful breeding of all birds; and this is certainly true of the lories. There are probably as many "nectar" mixes for lories as there are people who raise these birds. The lories require a very large glucose (sugar) supply to give them energy for their incessant activity. A high protein component of well balanced amino acids for cellular growth is essential. The amino acid, cystine, and its metabolic precurser, methionine, are very important for good healthy feather production. Soya protein and a concentrated protein mix called "Pro-Mix" (both available at health food stores) are excellent sources for the necessary



Black-winged lory, Eos cyanogenia bonaparte.

Dusky lory Pseudeos fuscata



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Vitamin D-3 for calcium metabolism, vitamins A, C, E and the B-complexes are all important and necessary for good health and breeding. Calcium in ample supply and maintenance of a correct calcium - phosphorus ratio is an absolute "must" for successful breeding and egg production. I find that calcium carbonate powder (sold here under the trade name of "Texas Lime") is very inexpensive and an excellent source of the calcium ion. Other minerals of considerable importance are: iodine for proper thyroid function which controls the bird's metabolism; sodium, potassium and chloride for proper electrolyte balance which is very important for life itself and certainly must be maintained, manganese, copper, etc. are needed for certain enzymatic and catalytic processes within the cells.

Squibb's Laboratory "Vionate" for animals is an excellent source of necessary vitamins and minerals and "Super Preen" is an excellent combined mixture of proteins (amino acids), vitamins and minerals.

Even though lories will nest in almost any facility supplied, I have found the most successful nest for lories to be a 5 gallon rectangular can with about a 2-21/2 inch diameter hole cut in the upper front corner. A 1/2 inch dowel is inserted through the can about 1-1½ inches below this hole. The top end of this can is removed with a can opener. About fifteen 1/4 inch holes are drilled in the long lower side of the can, which will eventually be the bottom of the nest. These holes are for drainage of the liquid excrement of the young, which accumulates in great quantities during their nesting stay. Holes of similar size and number are drilled in the top of the can for ventilation and escape of hot air during the summer. Wire hooks are placed on the back of the nest for mounting it to a wall. With the can's top off, 1/2 x 1 inch welded wire is wired inside to the bottom and front sides of the nest (cut holes in wire for entrance hole and dowel). This provides a rough climbing surface for the adults and young. Fill the nest about 1/4 full of nest material. The nesting material I have found most suitable for lories is a steam-treated wood bark mulching compound (one good brand is "Perma-Gro"). This heat treatment kills the bacteria and fungi that may be in any medium. Finally, attach the top of the can back on with wire and hang the nest horizontally at about a 45 degree angle, with the bottom end being lower than the top. This obligates the parent birds to walk to the eggs at the lower end and prevents breakage.

It is reported that lories are bad about killing their young in the nest and therefore

the young should be removed shortly after hatching. I, fortunately, have not found this to be true in my collection. On the contrary, I have found the lories to be very devoted, protective and excellent parents to their young and leave the young with them until I'm sure they are feeding on their own.

Lories are basically social birds and usually travel in flocks. This probably accounts for the fact that successful mixed colony breeding may be achieved with lories, as with many other psittacines, provided several criteria are met. These are: (1) Provide the lories with a large flight area. (2) Have many birds together so that aggressive parents will not single out any one individual to attack, since their attention will be diverted by others. (3) Have ample food supply. (4) Have an excess of nest boxes for them to choose from (all identical, if possible). However, if space and resources permit, you will probably have much more successful breeding results if you separate your lories into pairs in their own separate cages. If breeding is not your goal, a mixed collection of lories in a single large cage is one of the most spectacularly beautiful sights one can ever produce.

Pair bonds are certainly formed in lories and are very strong, but death of one partner, or separation of the pair, certainly does not hinder their taking another mate and breeding in short order.

The lories present a very strange genetic trait in the animal kingdom in that different species of lories can, and frequently do, innerbreed and produce **fertile**, rather than sterile, hybrids. Once good **pure** lines of the various species are well established in this country, the door to beautiful and interesting hybridization of these magnificent birds is "wide open". Due to this strange genetic quirk, I feel sure that many naturally occurring "similar subspecies" are the results of **natural** crossbreeding of different species producing self-propagating lines of these hybrids.

Other points of avicultural interest concerning lories are that, on the whole, all of them, rainbow lory size and up seem to be very "cold hardy" and can stand freezing weather very well as long as their water and nectar are kept thawed and they are given non-heat-conductive perches (wood, etc.). These birds are also easier medicated during illness than seed eaters due to the fact that most medications can readily be dissolved in their nectar mix, which they will nearly always consume, even if quite ill.

In summary, the magnificent lories, although involving a bit of extra care, are among the most rewarding birds in all aviculture with which to work •



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