

BABLERS

Husbandry and Management

A Brief Review, originally presented at the AZA 2003 Eastern Regional

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Passeriformes

Family

Timaliidae (Muscicapidae)

Babblers, Laughing Thrushes, Minlas, Sibias, Yuhinas, Red-billed leiothrix, Mesias and Liocichlas

This large family has 260+ species, 48 of which are laughing thrushes.

The Regional Collection Plan has targeted 12 species.

Four species of laughing thrush

White-crested laughing thrush, *Garrulax leucolophus*

Black-throated laughing thrush, *Garrulax chinensis*

Yellow-bellied laughing thrush, *Garrulax galbanus*

Red-tailed laughing thrush, *Garrulax milnei*

Silver-eared mesia, *Leiothrix argenteauris*

Red-billed leiothrix, *Leiothrix lutea*

Red-faced liocichla, *Liocichla phoenicea*

Blue-winged minla, *Minla cyanouroptera*

Chestnut-backed scimitar babbler, *Pomatorhinus montanus*

White-collared yuhina, *Yuhina diademata*

Bearded tit babbler, *Panurus biamiccus*

Vinous-throated parrotbill, *Paradoxornis webbianus*

White-crested laughing thrushes have been proposed for PMP. Black-throated laughing thrushes, Yellow-bellied laughing thrushes, Red-billed leiothrix and Silver-eared mesias have DERP-monitor status and the remaining species have DERP-exhibit status.

These Old World species are representatives of the Palearctic and Indomalayan regions. The majority of them inhabit the Himalayas, Malaysia, China and Southeastern Asia.

The species have been chosen because they make excellent exhibit birds. They are the aviary favorites of both our visitors and us. Many an aviary would not be complete without the ruckus, dueting call of a pair of white-crested laughing thrushes or the beautiful call of the colorful red-billed leiothrix. The captive North American populations of these species are high enough that we may be able to sustain these species in our collections, at least for the short term, if our breeding consistency improves.

During this presentation I am going to concentrate on *Garrulax* and *Leiothrix*.

HOUSING

Laughing Thrushes (*Garrulax*)

Laughing thrushes are active birds and are best maintained in larger flights. The four species targeted in the RCP range in size from 23 to 28 cm., and vary in weight from 55 to 130 grams. *G. galbanus* being the smallest and *G. leucolophus* the largest.

Laughing thrushes tend to be hardy species and acclimatize well. Temperatures into the 40's and 50's ° F can be tolerated and with access to a heated indoor enclosure even colder temperatures. Because of their size and high energy level these birds are best displayed in larger flights and aviaries. Birds can be housed in smaller jewel glass size exhibits (2 m. x 1 m. x 2 m.), but are better housed in larger flights. Beale Park has been successful, exhibiting and breeding laughing thrushes in 4 m. x 4 m. x 2 m. enclosures (Coles). These enclosures work well for a single pair of breeding birds mixed with other non-competing species or single sex groups. Large planted flights are ideal and can house several species of laughing thrushes as well as other species of birds. The San Diego Zoo and Minnesota Zoo have successfully displayed and reproduced laughing thrushes and the species displayed with them in these larger flights.

One-inch diameter wire, nylon mesh or ZooMesh is adequate to hold all species of laughing thrush. Smaller wire may be required to keep out predators if the birds are housed outside.

Red-billed leiothrix and Silver-eared mesia (*Leiothrix*)

Leiothrix are probably the best know species of babblers. They are active, colorful and excellent singers. In general *L. lutea* are slightly smaller than *L. argentauris*. *L. lutea* average 15cm. in length and weigh 20 to 25g. while *L. argentauris* average 16cm.in length and weigh 24 to 36g. However, there is a great deal of geographic variation in size for both of these species.

L. argentauris is hardy and can tolerate temperatures to freezing. *L. lutea* is not as cold hardy and should be at a temperature that does not range below 60° F. In either case access to a warm, sheltered area should be provided if these low temperatures are anticipated. Both species of *Leiothrix* can be kept in small cages, but the species cannot be expected to reproduce under these conditions. Minimum breeding flight size is 1.5 X 1.5 X 2 m. Because of their active nature these birds are best displayed in larger, well-planted enclosures. Both species of *Leiothrix* can be housed with a variety of other species.

Half-inch diameter wire, nylon mesh or ZooMesh is required to hold these birds. I have consistently observed *L. lutea* slip in and out of one inch mesh and a one strand break in ¾inch mesh will allow birds to escape.

SOCIAL BEHAVIOR/EXHIBITION

Laughing Thrushes (*Garrulax*)

In general *G. galbanus* and *G. milnei* are social species and can be exhibited in small flocks in larger enclosures. *G. leucolophus* and *G. chinensis* are very territorial when breeding and are best housed in pairs. There have been various exceptions to this, but as a rule the above pairings work the best. At the Minnesota Zoo both *G. galbanus* and *G. milnei* have reproduced when displayed as a flock with all birds in the flock getting involved with the nesting cycle at some point.

G. milnei and *G. leucolophus* have been housed in the same flight at the Minnesota Zoo with both species reproducing successfully in the same year. *G. galbanus* and *G. leucolophus* also have been housed together at the Minnesota Zoo with both species reproducing, although *G. leucolophus* failed to rear the chicks due to an inattentive female.

The San Diego Zoo and the Minnesota Zoo have successfully housed and reproduced other avian species with reproductive laughing

thrushes. The key to successful exhibits is adequate exhibit size and thick plantings. As a general rule finch sized birds should not be housed with laughing thrushes. *Sturnidae* and *Columbidae* works well with laughing thrushes. In a small aviary situation, 5m x 2m x 3m, a small *Galliforme* works well with a pair of thrushes. Laughing thrushes have a reputation for being aggressive and for eating eggs and young. Although *G. leucolophus* and *G. chinensis* can be very aggressive, in my experience it seems to be more individuals that can be troublesome and not the species as a whole. At the Minnesota zoo we have had more trouble with *G. galbanus* due to their gregarious and noisy nature. They are often found in other birds' nests stealing nest material and possibly, breaking eggs although we have never confirmed a case of egg destruction.

The following is list of some of the species housed which laughing thrushes. Bali mynah, golden crested mynah, white-crested laughing thrush, red-tailed laughing thrush, yellow-bellied laughing thrush, shama thrush, dhyal thrush, blue-winged minla, Nicobar pigeon, black-naped fruit dove, red-billed leiothrix, gaudy red-throated barbet, fairy bluebird, black-naped oriole, grosbeak starling, crested wood partridge, Renaults ground cuckoo, spur-winged lapwing, Victoria crowned pigeon and bamboo partridge.

Red-billed leiothrix and Silver-eared mesia (*Leiothrix*)

L. lutea can be kept in groups of 10 to 30 birds during the non-breeding season. During the breeding season birds break off into pairs they become territorial. The size of the aviary dictates whether birds need to be separated or not. *L. argentauris* is similar in behavior, although they may be more aggressive during the breeding season.

The Minnesota Zoo successfully housed and reproduced *L. lutea* in a 1.5 acre planted building. Although there were 25 to 30 birds in the building, flock size was usually around 10 birds outside of the breeding season. As breeding season approached birds broke off into pairs throughout the building and appeared to defend territories.

L. lutea and *L. argentauris* also breed as single pairs in aviaries. Unlike *Garrulax* that seem to do well as singles in aviaries *Leiothrix* do best in pairs and small flocks.

Both *L. lutea* and *L. argentauris* are active, pugnacious accomplished singers. At the Minnesota Zoo *L. lutea* provide ambience and activity in the Asian Tropics building, which is primarily mammal exhibits.

L. lutea and *L. argentauris* can be housed with a variety species although care should be taken when housing smaller species such as finches with *Leiothrix*.

L. lutea have been housed with a variety of species at the Minnesota Zoo including, but not limited to the following; Bali mynah, golden crested mynah, white-crested laughing thrush, red-tailed laughing thrush, yellow-bellied laughing thrush, shama thrush, dhyal thrush, gaudy red-throated barbet, blue-winged minla, Nicobar pigeon, black-naped fruit dove, green avadavat, gaudy red-throated barbet, fairy bluebird, black-naped oriole, grosbeak starling, crested wood partridge, Renaulds ground cuckoo, Indian roller and bamboo partridge. The size of the enclosure will dictate the species that are appropriate.

REPRODUCTION

Laughing Thrushes (*Garrulax*)

Laughing thrushes are monomorphic and need to surgically or blood sexed to make sure that you have a pair. Social behavior is not a good guide.

Laughing thrushes are open cup nesters and build their nest primarily out of sticks with a lining of whatever vegetation is present. A variety of artificial nest structures are used including, wicker nest baskets, wooden shelves, and wire platforms.

Clutch size is usually 2 to 4 eggs and the incubation period is 12 to 17 days. Eggs are laid every 24 to 36 hours. *G. leucolophus*, *G. galbanus* and *G. chinensis* eggs are buffy to bluish white in color. *G. milne* is the same color but have reddish streaks and blotches on them. Incubation starts with the laying of the first or possible second egg.

The chicks develop rapidly after hatch and generally fledge at 14 to 16 days. The chicks are completely weaned at 35 to 45 days of age. At the Minnesota Zoo we increase the mealworm/cricket feedings from two to four times/day. The adults feed primarily live food for the first few days.

Chicks may need to be pulled shortly after weaning as the pair may try to drive the chicks away if they attempt to reneest. In mixed flights it may be necessary to pull chicks at fledging, as they often tend to disappear. At the Minnesota Zoo we attempted, on several occasions, to place the fledglings in a small howdy cage and have the adults feed the chicks through the mesh. We also transferred the adults and fledglings to

a holding pen adjacent to the aviary hoping the adults would rear the chicks. None of these attempts were successful. Chicks are relatively easy to rear at this age. The fledglings are transferred to a brooder or isolette with a temperature of about 85°F. The fledgling is hand fed six times per day from 0630 to 1700 hours. A moistened and finely chopped softbill/insectivore diet, the same one you feed the adults, will work fine. The fledgling will probably need to be force fed for a day or two until it learns to eat from the forceps. Live food is also offered and can be placed in the food bowl with the chick to entice it to eat on its own. Feedings are gradually reduced, early and late feedings are the last to be discontinued, until the chick is self-sufficient. Weigh the chick AM and PM. This will give you a good base for evaluating the chick's status.

Red-billed leiothrix and Silver-eared mesia (*Leiothrix*)

L. lutea and *L. argentauris* are dimorphic. However, it is my opinion that it is best to blood sex individuals. There is a great deal of plumage variation among individuals and races. Females do not sing male songs, but males do sing female songs.

Leiothrix are open cup nesters and build their nests out of fine grasses, bamboo leaves, rootlets and may or may not be lined with moss or lichen. On occasion finch nests will be used. Nests are usually less than ten feet high, in dense foliage.

Clutch size is 3 to 4 eggs and the incubation period is 12 to 14 days. Eggs are white to pale greenish blue with red-brown mottling at the large end.

The chicks develop rapidly and fledge at 12 to 14 days. The chicks are completely weaned at about five weeks of age. Live food is critical to the successful rearing of *Leiothrix*. The adults only feed live food to their chicks for at least the first week.

Chicks may need to be pulled shortly after weaning as the pair may try to drive the chicks away if they attempt to reneest. In mixed flights it may be necessary to pull the chicks at fledging, as they often tend to disappear. Chicks are a little harder to rear than *Garrulax* species, but the techniques are the same.

DIET

Laughing Thrushes (*Garrulax*) and Red-billed leiothrix and Silver-eared mesia (*Leiothrix*)

Laughing thrushes are omnivores. Any good softbill/insectivore diet should be adequate to maintain laughing thrushes. A diet of fruit, softbill pellets, chopped egg and vegetables and live food is ideal. An increase in the amount of live food provided just before breeding season helps to bring the birds into breeding condition. Once chicks are hatched the amount of live food is further increased to allow for feeding of the nestlings. Mealworms and crickets are the primary live food items used at most institutions. Adults will usually start to take food from the feeding bowls to the nestlings once the nestlings are a few days old.

HEALTH ISSUES

Laughing Thrushes (*Garrulax*) and Red-billed leiothrix and Silver-eared mesia (*Leiothrix*)

Usual health issues found with aviary birds. As a group laughing thrushes and leiothrix are very hardy. Because of their smaller size both *L. lutea* and *L. argentauris* are more delicate. Aging laughing thrushes are prone to leg problems.

ACQUISITION

Laughing Thrushes (*Garrulax*) and Red-billed leiothrix and Silver-eared mesia (*Leiothrix*)

Commonly imported through the early 1990's. An importation will need to be organized if we are to maintain these species. For the present the specific needs for the successful reproduction of these species need to be developed and documented. Our breeding record with most passerine species, *Garrulax* and *Leiothrix* included, is sporadic at best.

PUBLIC/EDUCATION/ENRICHMENT

Laughing Thrushes (*Garrulax*) and Red-billed leiothrix and Silver-eared mesia (*Leiothrix*)

Laughing thrushes and *Leiothrix* are very active, noisy birds. The songs range from the dueting laughter of the white-crested laughing thrush, the subtle varied repertoire of the Black-throated laughing thrush to the delightful, melodic song of the red-billed leiothrix. Whether exhibited as a pair or as a group these birds are perpetually active. Depending on species they flitting from mid to upper canopy to the ground to forage. They are often bold and will spend time watching the visitors while perched near the walkway. Their markings range from the bold brown and white of the black masked and crested, white-crested laughing

thrush to the subtle markings and colors of the yellow-bellied laughing thrush and red-billed leiothrix. Added together this makes for a colorful and active exhibit, making these birds the favorite of visitors and zookeepers.

These birds are found in the middle of a region that's forests are rapidly being destroyed and along with it the species that inhabit them. *L. lutea* is already listed as CITES II. These species will readily come to aviary walkway for live food feedings. The opportunity can be taken to talk to the visitor not only about the birds, but what is occurring in the world today.

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