

# Hand-raising and rehabilitation of mynas

*Corina Gardner*



**Hill mynas**

**David Lim**

## **Introduction**

Mynas are average sized (about 22-28 cms) passerine birds which belong to the family of starlings, Sturnidea. The term 'myna' is commonly used to refer to starlings in India. Mynas are commonly distributed throughout Southern and Eastern Asia. These birds have duller plumage and are more terrestrial compared to other members of the starling family.

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### **Common myna** *Acridotheres tristis*

The common myna is widely distributed throughout India and Asia and has also been introduced to many parts of the world. The species lives in woodlands and near human habitations. They have brown plumage, a black head, throat and breast, while the bill and legs are yellow. They also have a distinctive yellow patch behind the eyes. They are omnivorous birds and will scavenge for just about anything including discarded scraps, insects, seeds, grain and fruit. They roost in large trees and build their nests in walls and rooftops of buildings.



**Common myna**

**Tris**

### **Jungle myna** *Acridotheres fuscus*

Jungle mynas are found in and around the Indian subcontinent. They have brownish grey plumage, a tuft of feathers on their heads, white patches on their

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primaries and a white tipped tail. They typically live in forests, tea plantations and near paddy fields. They are omnivorous birds and their diet often consists of insects, fruit, seeds and even nectar from flowers.



**Jungle myna**

**Devna Arora**

### **Bank myna** *Acridotheres ginginianus*

This species of myna is found primarily in the Indian subcontinent. The species resembles both the common and jungle myna but their plumage is slaty grey with a black head and bare brick red patches behind the eyes.

The Bank myna obtains its name due to its habit of building its nest on the earthen banks of rivers and streams. These birds hollow out holes or cavities in the earth to build their nests. Although, this is their favored nesting environment, they also readily build their nests in brick walls and roost in trees. Their preferred



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habitat is near water bodies, cultivated farmland, open country, as well as near human habitations. They are found in villages, towns, markets and railway stations all over the country where they scavenge for scraps. Bank mynas are very often seen near grazing cattle in fields picking up insects that have been disturbed by the animals. Their diet also includes fruit and grain.



**Bank mynas**

**Dr. Lip Kee Yap**

### **Common hill myna *Gracula religiosa***

Hill mynas are well known for their remarkable ability to imitate human speech and the vast repertoire of sounds they produce. The species occupies a huge range stretching from Burma, Garo Hills (Meghalaya), Assam, Nepal, Orissa, South India, Sri Lanka, Andaman and Nicobar Islands, to Northern Thailand and South China. Hill mynas have glossy black feathers tinted with purple. All have similar bright yellow wattles but the wattle pattern varies according to the species and the bright orange beak fades to yellow at the tip. There's a band of white across

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each wing while the legs and feet are yellow. The average lifespan of a myna ranges from 12-25years.



**Hill myna (male)**

**Om Prakash Yadav**

### **Brahminy starling** *Sturnia pagodarum*

Brahminy starlings are resident to Nepal and India. They have pale reddish-fawn plumage with a grey back, a black crest and a yellow bill with a bluish base. The crests of the males are more prominent than those of the females. Their habitat ranges from jungles, marshy lands and fields, to human habitations. Like most species of starling, these birds too are omnivorous, feeding on insects, fruits and seeds. These starlings are very often seen in fields near grazing cattle. They live in pairs or small flocks, roosting in large trees and building their nests in tree cavities and holes in walls of buildings. These passerines have a delightful musical chattering call.

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**Brahminy starling**

**Devna Arora**

### Characteristics of mynas

Mynas are very sociable, inquisitive, lively and intelligent birds. Hill mynas in particular make wonderful pets, and are hugely popular in the West. Prized for their exceptional vocal skills, the Hill myna has been described by many as the best talking bird in the world. These birds have an immense repertoire of sounds and are extraordinary mimics, though some species are more loquacious than others. These truly incredible mimics make it difficult to differentiate between a human voice and a hill myna's as they speak and whistle exactly like people.

Hill mynas prefer forest edges and cultivated land in areas of high rainfall. Because of deforestation, the number of Hill mynas is considerably less than it once was, and they have been forced to live at lower elevations. In their natural habitat, they live in pairs or small flocks although they prefer to roost in large

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numbers at night. As with most species of birds, mynas become especially noisy just before sunrise and sunset. Their sounds include shrill whistling and screeching noises. Mynas nest in tree hollows or cavities high above the ground, where they usually pad their nest with grass, leaves, twigs and feathers.



**Myna's nest**

**Stephen Witherden**

Hill mynas feed on ripened fruit; therefore, they prefer areas where there is an abundance of fruit. They eat berries and seeds from a wide variety of trees and shrubs, and nectar from several kinds of flowers. Occasionally, they eat insects from the foliage of trees and their diet includes termites as well.



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### Guidelines for hand-rearing mynas

The breeding season for mynas is usually from April-September in India. A mynas clutch usually consists of 2-3 eggs. The eggs are bluish green with brown speckles or patches. Mynas are monogamous breeders, with both parents actively caring for the young and both parents taking turns incubating the eggs, which usually hatch around 14-16 days. Both male and female mynas feed the babies together and sometimes leave them unattended when out searching for food. The parents still eat some fruit during this time, though this is mostly the time when they eat insects and small lizards, which they regurgitate and feed to their babies, as the babies require high amounts of protein at this stage.



**Gapers**

**Alex Cordero**

Young mynas are called gapers, as they open their beaks in a wide gape and beg loudly. When the young myna has eaten enough it sits quietly with its beak shut.



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A young myna will still display his gape and expect to be fed even after he has left the nest and learned to fly. Normally, fledglings are still fed by their parents until gradually they become more independent and start eating on their own. However, hand rearing often becomes necessary when you find that the parent birds are not feeding the baby and the baby is getting progressively weaker. Such a situation would demand immediate intervention and you will have to care for the baby birds yourself.



**Myna chick fallen from the nest**

**Rosa Say**

Babies are also sometimes found if they accidentally crawl out of the nest (which may be due to several reasons). This is common during the fledgling stage. If the nest is intact, the babies may simply be picked up and placed back in the nest. Babies are also found if the tree falls due to natural causes, or in rare instances, is felled by humans before checking for existing nests. Chicks sometimes get displaced when inexperienced females are not able to build secure nests and they may get exposed or blow away in the gusty storms of the pre-monsoons. Try and locate the presence of the parents before rushing to the rescue of the little birds.

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Do not rush to the chicks if the parents are nearby as you will only scare them away. The most ideal action in such an instance would be to build or offer an artificial nesting site to the parents.

Ensure the safety of the chicks from a safe distance away while preparing and installing the artificial nest. Only if the chicks seem to be in danger or in uncomfortable positions, may they be cooped up and temporarily placed in a basket. But keep the basket in view of the parents so they don't lose hope. Avoid exposing the chicks to direct sunlight or rain and keep them well sheltered and warm.

The simplest option for an artificial nest would be to place an earthen pot (the size of a basketball) or a wooden nest box at the site of the original nest. A covered wicker basket may also be used for the same purpose. Ensure to secure the nest firmly to the tree or wall and make sure it has an entrance hole of about 4" diameter. Make some holes to the bottom of the pot/box to allow drainage of excess water. The box must be placed in an adequately sheltered place whereby also providing sufficient camouflage for the parents. You can line the nest with a soft hand towel but refrain from doing too much. If they feel the need, the parents line the nest in a manner that is most appropriate for them.

The last alternative would be to shift the chicks to another location – either another natural cavity or artificial nest box. In case you are required to shift the chicks, ensure to do so in view of the parents so they can follow you and locate the chicks. Once the chicks have been shifted and placed in the new nest, ensure to move away from the area and keep an eye on the chicks from a good distance away so as to give the parents plenty of space to return to the nest. The parents should return and start feeding the chicks in a couple of hours. Once, you have observed the parents feedings the chicks for a few time, you may move away –

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the chicks are now safely back home. Subsequent visits to check on the chicks must be made from a distance. At no point must you approach the nest and disturb the parents.



**Artificial nest basket for baby mynas  
Nupur Buragohan**

Babies may be admitted for care if the parents fail to return (normally in the case of death) to the nests and care for the young ones. Babies may also be admitted temporarily if they are found to have grave injuries, in which case, they may be returned to the nest after appropriate and adequate treatment and healing.

### **Feeding and hygiene**

A disposable syringe, which is easily available in most medical stores, can be used for feeding the young birds. Syringe feeding is faster and less messy. However, if unavailable, then the next best alternative would be to use an eye dropper or a plastic teaspoon. Spoon feeding maybe lengthy and messy, but its ultimately beneficial as you could use thicker consistency of feed towards the end of the



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hand-rearing process. The slender tip of the spoon can be dipped in boiling water and then bent make a funnel, thus making it easy to use for hand feeding.

Feeders should be disinfected before and after use. The feeders (spoon, syringe or dropper) must be rinsed with warm water to remove any feed residues. Mild soap or detergent can be used to clean spoon feeders; however, it's very essential that it must be washed thoroughly so that no soap residue remains. Droppers and syringes need to be sterilized before use.

### Feed for baby birds

The chicks can be fed on a diet consisting of *Sattu* or *Chhatua*. On purchase and before use, the *Sattu* or *Chhatua* powder must be slightly roasted and then blended in a dry-mixer and stored in containers – this retains the nutrient value of the mixture and gives it a better shelf life as well. Much like wheat flour, the flour may be kneaded into dough and rolled into small bite-sized portions for the chicks to feed on. Soft fruits such as banana, mango, papaya, etc. can be mixed with crumbled up biscuits (marie or cream cracker biscuits would be appropriate) and be added to the chicks diet. Mashed boiled eggs may also be added to the chicks' diet. If possible, insects such as grasshoppers, caterpillars and crickets could be fed to the babies.

Baby bird formula, for example, Kaytee Exact or Myna softbill diet which is available in pet stores could also be used to feed the babies. However, as it is not easily available in India, baby formula like Cerelac along with crumbled bread can be used instead. To ensure that the highest levels of hygiene are maintained, only boiled water must be used to prepare the feed. Water must be boiled and then cooled before use or the formula will be too warm for the chicks to consume. The formula must be prepared in a glass container as plastic containers tend to harbor

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bacteria. Never prepare formula in dirty containers. Prepare formula for just one feed at a time, and always discard any leftover food.

The consistency of the formula should be similar to that of a soft pudding – neither too thick, which would make it difficult for the baby to swallow and it may choke, nor too diluted as the baby could inhale the formula into its lungs causing aspiration. The formula must only be heated adequately before feeding the baby.

Feeders should be disinfected before and after use. The feeder (spoon, syringe or dropper) must be rinsed with warm water to remove any bacteria. Mild soap or detergent can be used to clean the spoon feeders; however, it's essential that it must be washed thoroughly so that no soap residue remains. Droppers, syringes must all be sterilized before use.

### **Feeding instructions**

The baby bird can be placed on a napkin or towel on a table or kitchen counter to allow you to be in a comfortable position while feeding the chicks. Parent birds tap on the baby bird's beak to stimulate the feeding response. So, gently tap the bay bird's beak with the feeding instrument in a similar manner to encourage the feeding response. The trick is to emulate the parent bird as much as possible. The feeding response is when the baby senses food and gapes, bobbing its head up and down. Parent birds then feed their chicks by inserting their beaks at an angle, through the side of the baby's mouth. They then regurgitate the food deep into the baby bird's mouth. Therefore, insert the tip of the feeding syringe at an angle at either sides of the baby's beak. Press the plunger slowly, stopping every now and then, so as to allow the baby time to swallow. The speed of feeding must never be hastened. Enough time must be allowed for the baby to swallow its food before pressing on the plunger any further. When the baby has had enough to

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eat, the baby will stop gaping and refuse to open its beak. Feeding must be stopped immediately. The baby must not be forced to feed when it is reluctant to accept food. Over feeding can cause formula to flow into the throat and down its windpipe, which can be life threatening. Unlike most other birds, mynas do not have a crop in which to store their food. The beak and feathers of the baby must be wiped gently with a warm, damp cloth after feeding.



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### Stage wise care and feeding instructions for the chicks

#### 0–2 week old chicks

New born mynas are born totally pink, featherless, blind and completely helpless. Pin feathers begin to erupt in the second week of the baby's life and the babies' eyes usually open around the 8<sup>th</sup> – 10<sup>th</sup> day. Fresh hatchlings require extensive care and need to be fed almost round-the-clock. It would be unnecessary to feed the baby at night as in nature, parent birds as well as the babies sleep at night.



Two weeks old myna

Caroline Dreams

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Ideally, feeding should start at 6 a.m. and continue until midnight. The chicks should be given 10 feeds a day at intervals of 2 hours. A day old chick would require approximately 1 ml of formula per feed, which can be gradually increased to 2 ml by the 4<sup>th</sup> day and 3 ml by 7<sup>th</sup> day. The feedings can also be reduced to 8 feeds by the end of the 10<sup>th</sup> day. Two feeds – one around mid-morning and one around mid-afternoon, may be replaced by mashed/pureed soft fruits like banana, mango or papaya instead of the formula.

### **2 – 4 week old chicks**

Even though the nestlings are covered with feathers, there is still a while before the flight feathers develop. The baby can now be given about 7 feeds a day. Gradually reduce the feeds to six times a day. Feeding however must still begin by 6 a.m. and the last feed could be given by 10 p.m.



**3 weeks old myna chicks**

**Alex Cordero**

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The baby can now be fed on a combination of *sattu* and fruits as well as mashed hard-boiled egg. Mashed/pureed banana, papaya, mango, sapodilla (chiku), mixed with crumbled up biscuits (marie or cream cracker would be ideal) are good options to add to their diet. If possible, insects such as grasshoppers, caterpillars and crickets could also be fed to the babies.

You can either offer them a mix of *sattu* and fruit, or the feeds may be alternated with *sattu* in one feed and fruit in the other. Avoid repeating any one fruit over and over again; instead, it would be better to offer them different fruits at intervals. This would be easier for them to digest and also ensure an intake of varied nutrients from different fruits.

### **4<sup>th</sup> – 5<sup>th</sup> week**

The fledgling now starts to develop flight feathers by this age and will soon fledge in a couple of weeks. The young mynas can now be given 4-5 feeds a day, about 5 hours apart. They also start foraging (searching for food) themselves by this age. The weaning process must begin by the time the chicks are 5 weeks old. Make sure that there is always food available for them so that they can start eating on their own and gradually become independent although you should still carry on hand-feeding the feedings.



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**A month-old myna**

**Simon Morris**

### **6<sup>th</sup> – 7<sup>th</sup> week**

The young bird is quite independent and starts to search for food. Put small morsels of food in his cage and he will start to eat on his own. Now is also the time to transfer the bird to an outdoor enclosure. Although they feed well by themselves at this age, they must be watched vigilantly to ensure they are eating well. If necessary, hand feeding can be continued once or twice a day. A bowl of fresh water must be available at all times for the young birds as they will now begin to drink water. The young birds may now be offered fruit chopped into small pieces, *sattu* pellets, pieces of hard-boiled egg as well as boiled rice and *dal* (lentils).

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Fledgling mynas

Alex Cordero

### 8<sup>th</sup> – 9<sup>th</sup> week

By 8 weeks of age, the young bird should be completely weaned.

Offer the fledgling a varied diet by this age. Allow them to explore and make choices for themselves. Their diet can now include a variety of fruits, berries and insects, such as grasshoppers and crickets.

### Adult bird diet

Mynas are soft bill birds and primarily only eat soft foods. They do not eat seeds. In captivity, their diet consists of *sattu* pellets, cooked rice and *dal*, hard-boiled egg, insects and fruit. Green leafy vegetables such as lettuce, mustard sprouts, millet sprouts and fenugreek (*methi*) leaves are also very essential.

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Mynas drink plenty of water and their water bowl should always be clean and filled with fresh water. The water should be changed frequently. Mynas also enjoy frequent bathing, so it is necessary to keep a shallow bowl filled with fresh water for the birds to bathe in.

### **Foods to be avoided**

Foods that are highly toxic for birds include apple pips, avocado (*makhanphal*), cherries and peaches (*aadu*) and must never be given to the birds. Never give the birds chocolate, as it may make the bird seriously ill.

### **Housing the young birds**

A shoe-box or a small cardboard box with adequate holes for ventilation, a wicker basket or even a small aquarium may be used to house the young birds. The box can be lined with a soft towel at the base and a few layers of paper towels and strips of paper on top of the towel, as paper towels are easier to change when dirty.

The box must be placed in a warm, dry place, preferably near an artificial source of warmth. A heating lamp, with a light bulb of maximum 40 watts, can be placed above the box to provide warmth to the chicks. The lamp must be placed at least 12" away from the box. The ideal temperature for the baby birds would be about 35.5° Celsius (or 96° Fahrenheit). Again, it is crucial to be vigilant and ensure that the baby is not being overheated. A clear indication of overheating would be when the baby's beak is open (as if panting) and wings are held away from its body. Unlike mammals, birds lack sweat glands and hence cannot sweat. To release excesses body heat and afford a cooling effect, they open their beak wide

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and pant, causing moisture to evaporate from the oral cavity and in turn cooling the body. On the other hand, if the bird is huddled and shivering, it is not receiving enough warmth.



**Housing baby mynas**

**Devna Arora**

The box must be partly covered with a light towel at night to keep out the light from the heating lamp and thus enabling the baby to sleep. It must be noted that the purpose of the lamp is to provide warmth alone and not light and it must never interfere with the natural light patterns and disrupt the baby bird's sleep cycle. Even when in captivity, the parent bird sits on the baby, shielding it from most of the light. The heating lamp may be discontinued after the baby crosses 2-3 weeks of age and is covered with its first layer of feathers.

Ants are a real danger to baby birds and can fatally hurt them. It must be ensured that there are no ants in the vicinity of the bird.

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### **Sexing mynas**

Mynas are sexually monomorphic species and sexing mynas on appearance or behavior alone is extremely difficult. Mynas very seldom reproduce in captivity which further adds to the confusion. However, there are a few indications to ascertain the difference between male and female mynas. Within the same species, male mynas are larger than the females. The wattles of male mynas appear larger. Hill myna males have distinctly flatter heads than females, whereas the female mynas have a more rounded head. Another indication that the myna is male is the fact the pelvic bone in the male myna is set closer than in the females.

### **Preening**

Mynas frequently preen their feathers. Birds use their beaks to preen their feathers and keep them in good condition. Preening is an essential way for birds to keep their feathers neat and trim.

### **Rehabilitating the young mynas**

By the age of 3 months, the young mynas should be shifted to an aviary, preferably one with some fruiting trees. They must be provided with a nest box to retire in at night and during harsh weather. Human contact must be withdrawn from the birds and they must be encouraged to be independent.

Avoid placing a feeding table in the enclosure. Instead, place the food in different sections of the enclosure every day. The placement of foods must be rotated so as to encourage 'searching' behavior in the young birds. Food must also be placed at different height levels so as to get the birds used to foraging at various levels of height. The birds must be offered a variety of foods to prevent dependency on



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any one food type. A significant proportion of their diet must now comprise of wild-gathered foods as it will assist their transition to the wild and help them recognize readily available foods. The birds must have access to fresh drinking water at all times and they must frequently be given provisions to have a bath.



**Pre-release aviary**

**Devna Arora**

### **Soft release**

By the age of four to five months, the young mynas will be ready to explore the outside world. Common mynas and Jungle mynas are highly adaptable species which makes it easier to release them in any convenient surroundings where they will be able to find sufficient forage. Hill mynas on the other hand are habitat specialists and need forested landscapes for survival. The young birds must now be shifted to an aviary. The aviary for Common and Jungle mynas may be in any suitable location whereas the aviary for Hill mynas must be in a forested landscape.

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By four to five months of age, the mynas may be allowed to exit the enclosure via a window (an opening) in the aviary. The window may either be on the side or the top of the aviary. The window must be opened early in the morning and closed by sunset. The birds will initially fly around and come back to the enclosure for a few weeks. As they grow older and have explored their surroundings thoroughly, they will begin to stay away for longer durations of time, until they have established a territory of their own and no longer feel the need to return to the enclosure. They should be completely independent by 6 months of age.

### **Hard release**

Although a soft release is ideal for hand-raised birds, there may be instances where you may have to opt for a hard release for the young mynas. The minimum age at which the bird may be released is 6 months of age. Habitat selectivity may carry more importance when opting for a hard release. Hill mynas must only be released in forested landscapes while Common and Jungle mynas may be released in any suitable habitats.

### **Sickness in mynas**

#### **Egg binding**

Egg binding is a medical condition when a female bird is unable to expel an egg. Egg binding can pose a serious threat to female birds. Younger females are at a greater risk of dying from egg binding. In the event that a female myna is suddenly puffed-up and listless, it is quite likely due to egg-binding.

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The female must immediately be placed in a small cage or shoe-box and provided with quiet and additional warmth. A heating lamp would be ideal. Castor oil or even cooking oil can be gently applied in to the birds vent or cloaca, with a Q-tip (a cotton bud) to lubricate the area and facilitate the passing of the difficult egg. One drop of castor oil given orally will also help the passage of the egg. If these basic requirements are provided it is unlikely that the bird will suffer any serious health issues.

### **Abnormal droppings**

Green droppings usually indicate an infection. Birds fed on soft food and greens may normally produce green and watery droppings, but if the droppings are runny and bubbly as well as carry an odor and persist over a period of time (especially if the bird is fluffed up, lethargic and has a loss of appetite), it indicates a chill or an infection. A pinch of Ridol, Kaltin, terramycin or any other antibiotic tablet can be dissolved in a half container of water. The infection should likely subside in a day or two and the medication may be discontinued a day after the bird has returned to normal health. Avoid exposing the birds to a cold breeze or draught, especially at night, as this causes chills and other health problems. Avoid offering fruits at this time; cooked rice and boiled egg are a good option instead.

### **Fungal infection**

Aspergillosis is the most frequently occurring fungal infection in birds. It is primarily a disease of the lower respiratory tract. There is a high prevalence of the infection in mynas. The spores of the fungus are often present in the environment and healthy, unstressed birds are generally resistant to even high levels of spores. Birds with a weakened immune system, or high stress levels (due to environmental changes), are most susceptible to the disease. It may be

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contracted as the result of inhalation of fungal spores, fecal material or soil, or oral ingestion, especially if the birds are fed moldy food or housed in a contaminated environment.

It is therefore extremely important that feed is properly stored and is free of fungal growth. Proper ventilation in the enclosures is also essential. Most importantly, the birds must be fed a healthy diet.

Symptoms of a fungal infection include constant sneezing, coughing or labored breathing, loss of appetite and diarrhea. It can be life threatening if left undiagnosed or untreated.

Treatment: The infected bird must be immediately isolated from other birds and provided with a quiet environment and additional warmth – a heating lamp would be ideal for this purpose. Antifungal tablets like Amphotericin B, Flucytosine, Fluconazole or Itraconazole must be added to the bird's drinking water. You could also consider using Teeburb tablets which is an herbal veterinary preparation. Immunostimulants may also be added to the bird's diet to facilitate recovery. However, if you find that the bird is not drinking the water, then the medication will have to be force fed.

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Devna Arora – Brahminy starling

Devna Arora – Jungle myna

Devna Arora – Housing baby mynas

Devna Arora – Pre-release aviary

Dr. Lip Kee Yap – Bank mynas

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Nupur Buragohan – Placing a basket as an artificial nest for baby mynas

Om Prakash Yadav – Adult male hill myna

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[Accessed: 19/07/2012]

Tris – Common myna

Available from: <<http://www.flickr.com/photos/trissysviewpoint/6385394335/>>

[Accessed: 19/07/2012]

Rosa Say – Myna chick fallen from the nest

Available from: <<http://www.flickr.com/photos/rosasay/2629762970/>>

## Hand-raising and rehabilitation of mynas

[Accessed: 24/07/2012]

Simon Morris – A month-old myna

Stephen Witherden – mynas nest

Available from:

<<http://www.flickr.com/photos/swit012/4734358109/sizes/l/in/photostream/>>

[Accessed: 19/07/2012]

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