Starlings and Mynas

by Susan Congdon, Disney's Animal Kingdom, FL

he names starling and myna are often used interchangeably similar to pigeon and dove. Myna is the Hindi word for starling and is often used for species native to southern and southeastern Asia and the southeastern Pacific. Many of the Asian birds are known as both starlings and mynas.

Near Extinction of the Bali Myna

There are 114 species in the sturnidae family. All are from the Old World. To date five known species of starling/myna have become extinct. All five of these were island species. Currently there are seven sturnidae species that are globally threatened. Only one of these seven, the Bali Myna, has a conservation program in place.

Though the wild population of Bali Mynas has been difficult to estimate, it has fluctuated dramatically since the 1970s. In 1981 there were estimated to be 250 birds. By 1990 that number had dropped to 15. Due to some birds being introduced back into the wild, the 1992 figure increased to 55 birds. By 1998 though, the estimated wild population was back down to 14. The number of Bali Mynas in captivity at present is estimated to be 700.

There are several reasons for the decline of the wild population. Keeping Bali Mynas as pets in Indonesia has been a tradition for many years. In the 1960s and '70s several hundred wild birds were captured and shipped to the U.S. and Europe for the pet trade.

Though international trade is now illegal, to possess this species is a symbol of wealth and status in Indonesia. An individual bird will bring 1,000-2,000 dollars on the black market in Indonesia. Many of the birds that were banded and released have been subsequently recovered when found for sale in Indonesian bird markets. The conversion of forest to agricultural land, and deforestation for firewood and human settlements have greatly decreased their natural habitat.

In response to the decreasing wild population, the American Zoo and Aquarium Association, Jersey Wildlife Preservation Trust, and the Indonesian government have set up a Species Survival Program (SSP). The main goals of this program are to study the wild population, protect what habitat is left, guard the existing wild population, and develop a captive breeding program to maintain genetic diversity and supplement the wild population through the release of captive raised birds.

Beneficial Starlings

The Eurasian Rose-colored and African Wattled Starlings are believed to be beneficial due to their insect control near agricultural crops. Both species establish breeding colonies in areas where swarms of locusts and grasshoppers appear. It is believed that they eat enough of these insects to protect food crops.

Pest Starlings?

There are some species of starling/myna that are considered to be pests. The European Starling and Common Myna are two examples of this. European Starlings were introduced to North America and are extremely gregarious. As well as damaging important crops they compete with native birds for hollows in which to nest.

Common Mynas, introduced to many places including Hawaii and South Africa, are known not only to damage crops but also to wipe out populations of beneficial insects. Some states actually prohibit the ownership of starlings and mynas. California is one state that bans all sturnidae species except for the Hill Myna.



Golden-breasted Starlings at Disney's Animal Kingdom.

Photos courtesy of Susan Con



Amethyst Starlings at the Houston Zoo.

Starlings/mynas are popular zoo birds. The following is an introductory natural history outline on the starling and myna species that can be found at Disney's Animal Kingdom. It is not meant to be an exhaustive reference but only a brief outline to spark more interest in sturnids. Most of these species are widely found in zoos and in private aviculture.

Amethyst Starling Cinnyricinclus leucogaster

Amethyst Starlings are sexually dimorphic, meaning that the male and female are physically different in some way. This species is dichromatic which means that the physical difference is the color of the bird. Throughout Africa, south of the Sahara, this starling is common to abundant. In some areas this species occurs seasonally. Amethyst Starlings are also found on the southwest border of the Arabian peninsula, in open woodland areas and riverine forest.

Amethyst Starlings move in large groups when trees are producing fruit. Fruits, insects, termites, winged ants, seeds, and mistletoe berries have all been found in stomachs of wild birds. This species seldom feeds on the ground, taking insects off branches in flight. The captive diet consists mainly of fruit, insectivorous bird mix, and insects. A commercially made bird pellet is often part of the captive diet. Chicks are usually raised on live food alone.

Amethyst Starlings nest from 2-6 meters above the ground in hollow trees. They compete with Pied Barbets and Grey-headed Sparrows for nest holes. The amount of time the male has been observed to contribute to nest building varies greatly. Wild birds have been reported to use dung to the exclusion of all other nesting materials. In captivity, pairs have been observed to use primarily leaves as their nest building material.

The eggs are pale blue with reddishbrown spots more concentrated at the broad end. In the wild they lay 2-4 eggs in a clutch and they are incubated for 12 days. The female usually incubates the eggs, with both parents feeding the chicks. Chicks fledge at 21 days. In captivity the incubation period ranges from 12-14 days and the nestling period has varied from 17 -26 days.

Emerald Starling Lamprotornis iris

Emerald Starlings range from Guinea to Mali and Ivory Coast in West Africa. They are common in this restricted range. This species frequents Savannah woodland areas. Sexes are visually alike in this species.

Emerald Starlings have been observed feeding on insects, seeds, fruits, and black ants. They feed on the ground much more often than Amethyst Starlings. In captivity they have been observed eating ants that were attracted to a nectar feeder. Commercial bird pellets can also be part of the captive diet.

Breeding in the wild has not yet been described. It is presumed that tree hollows are used in the wild as they are in captivity. These are lined with green leaves, pine needles, grass, and coconut fibers. Green leaves have been observed playing a significant role in courtship.

Eggs are pale blue with red-brown blotches. The female incubates the 3-4 eggs for 14 days. In captivity, both parents have been observed feeding mealworms and crickets to chicks. The chicks leave the nest after 21 days. In several captive instances there has been a third adult bird feeding chicks. This would suggest that cooperative breeding exists among this species although this has not been confirmed in the wild.

Golden-breasted Starlings Lamprotornis regius

The Golden-breasted Starling is locally common in Ethiopia, Somalia, Eastern Kenya, and Northeastern Tanzania. They are commonly found in pairs to groups of eight in open bush country in arid and semi-arid areas. Sexes are visually alike.

Some fruit is eaten although they are almost entirely insectivorous. The captive diet may include insects, a commercially made pelleted diet, and a commercially made insectivore diet.

In the wild either natural or abandoned barbet or woodpecker hollows in trees are used for nesting. The nest location ranges from 3-7 meters above the ground and is usually lined with dry grass, feathers, and hair. In captivity nest-boxes are lined with leaves, feathers, and moss.

Eggs are pale greenish-blue with small reddish-brown speckles. Wild clutches consist of 2-6 eggs, with cap-

tive clutches being slightly larger with 3-4 eggs. The female incubates the eggs for 14 days. The chicks spend 19-22 days in the nest. Cooperative breeding has been observed in which the female parent feeds the chicks and the other cooperating females feed her. Chicks are primarily fed moth and beetle larvae in the wild.

Superb Starling Lamprotornis superbus

Superb Starlings are located from Central Tanzania, north throughout Kenya, western Uganda, southwestern Sudan, southern Ethiopia, and Somalia. They are abundant within this range. They live in arid country, cultivated areas, lakeshore grasslands, and suburban gardens. Sexes are visually alike.

Superb Starlings feed mostly on the ground collecting insects, scavenging around people with little concern. They also eat berries, fruit, and nectar from flowers. Bird pellets may also be included as part of the captive diet.

Nests are free-standing structures built in thorn trees. Some pairs nest in tree hollows and cliffholes. Nests are large twig structures lined with dry grass. The nest entrance is on one side protected by thorns. Feathers are also sometimes used to line the nest. Some pairs deliberately place thorny twigs around the nest for protection.

Eggs are a uniform dark blue laid in a clutch of four. The nestling period is 18-24 days after an incubation period of 12-13 days. Chicks are fed mainly insects with some berries. Helpers at the nest are very common in captivity and have included both males and females. Some pairs do not tolerate any other starlings of the same species in the aviary when they are nesting.

Golden-crested Myna Ampeliceps coronatus

This species is sexually dimorphic. The female has less gold on top of her head, chin, and throat. The Cachar District in Assam and Manipur through Burma, south of Mogok into Yunan, and south to northwestern Thailand, and southern Indochina is the range of this species. Their habitat is dense lowland evergreen forests, moist deciduous woodlands, open forests and cultivated clearings. This species is a tree-top dweller that occurs in pairs to small groups.

These mynas sometimes eat insects but are mainly frugivorous. A captive diet may also includes bird pellets.

Golden-crested Mynas build their nests, constructed mainly of grasses, in tree hollows. Eggs are blue-green with brown blotches at the broad end of the egg. The four-egg clutch is incubated for 14-15 days by the female alone. Males help to feed the chicks which fledge at 25-26 days of age.

Grossbeak Myna Scissirostrum dubium

Sexes are visually alike. This species occurs on the island of Sulawesi. Ideal habitats include forest edges, lightly wooded habitats, and swamp forests.

Reported to eat grain and fruit, they also feed in the canopy of fruiting trees. Some insects are also eaten. As with the other starling species, a commercially prepared pelleted diet may also be provided as part of the captive diet.

This is a colonial species, occurring in large flocks. They nest in holes that they bore themselves in rotten or dying tree trunks. Colonies can have up to 100 nests. Nest cavities are tear-drop shaped with an entrance hole of 4 cm in diameter. Dry grasses and leaves are used to line the nest cavity.

Eggs are pale blue with fawn and brown speckles or reddish-brown patches at the broad end. Two eggs make up a clutch and are laid 24 hours apart. Both adults take turns incubating for 13-14 days. Both parents feed the chicks, which fledge at 21-23 days of age. Parents continue to feed the chicks for at least five weeks after they leave the nest. In the wild it appears that there is only one chick per nest, though it is not clear whether there is only one fertile egg or only one chick survives.

Many of the activities within the colony appear to be highly synchronized including bathing, feeding, preening, and breeding. Sometimes the colony becomes so large and heavy in a tree that the tree breaks and the colony is destroyed. Pairs sit in close contact much of the time, mutually allopreening.





Superb Starling at Disney's Animal Kingdom.

Bali Myna Leucopsar rothschildi

The sexes are similar except for the crest of the male, which is longer than that of a female. Bali Mynas are found only on the island of Bali, and now found only in the Bali Barat National Park in the northwestern point of the island. Found in open woodland areas, this species is more arboreal than other mynas.

Seeds, fruit, worms, insects, and small reptiles are all part of the Bali Myna's diet. The insectivorous part of the diet includes caterpillars, ants, termites, dragonflies, and grasshoppers. The captive diet consists of fruit, a commercially prepared pelleted diet, and insects.

In the wild, breeding takes place during the rainy season, which lasts from January-March. They nest in old woodpecker hollows in trees, which they line with dry twigs. Various nest boxes and materials have been used for nesting in captivity. Although both sexes contribute to nest building, the male spends more time building the nest and the female spends more time lining it.

In the wild there are 2-3 pale blue eggs, without spots, in a clutch. Only one chick usually survives to fledging. The normal captive clutch is three eggs but has ranged from 1-5. The incubation period is 12-14 days and is done predominantly by the female. Chicks typically fledge at 22-24 days

From April to December, during the non-breeding season, Bali Mynas form flocks of up to 40 individuals. During this time they roost communally. During the breeding season they become very territorial and roost in pairs. Pairs spend time allopreening mostly the throat, back and sides of neck, and the crest.

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