

The Breeding of Emerald Dove : a first at Dhaka Zoo

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The Emerald Dove (*Chalcophaps indica*) is a pigeon which is a widespread resident breeding bird in tropical southern Asia from Pakistan to Sri Lanka and east to Indonesia and northern and eastern Australia. The dove is also known by the names of Green Dove and Green-winged pigeon.¹

Among a total of four doves (3.1) in captivity at Dhaka Zoo, the lone female dove laid two eggs on 19 March, 2011. One of the eggs hatched on 2 April 2011. It was the first birth of Emerald Dove at Dhaka Zoo. After birth the chick drank pigeon milk, a special feature of pigeons and doves. During breeding season, male and female crops enlarge and secrete a thick milky substance. The chicks drink this milk by poking their bills into the parent's throat.

According to Brown (2010)² nesting material needs to be provided only in the breeding season, which is usually spring. The provision of nesting materials and the correct food trigger make it possible for them to breed all year round. During the rest of the year the bird will happily roost on any tree or perch provided in the aviary. Captive Emerald Dove lives on a pigeons diet which is easy to maintain. A common diet consist of commercial grade pigeon seed, with mixed greens and seasonal commercially produced fruit such as apples, bananas, mangoes, watermelon given daily with occasional invertebrates such as mealworms and cockroaches.

At Dhaka Zoo, the enclosure of Emerald Dove has no special features. We provided some vase or basket fixed on different parts of enclosure for laying eggs and planted a bamboo tree inside the enclosure. We provided 2gm millet, 3gm mustard oil seed and 3gm paddy for each Emerald Dove per day. As a supplement to this food, 0.2gm mixture of multivitamines and toxin binder with the above feed was provide per day for each Emerald Dove once a day.

The family Columbidae has 289 species worldwide, with 30 in Indian sub-continent. This species is listed as 'Least Concern' under the IUCN Red List (IUCN, 2010) due to its wide distribution. Although it is thought that its population is decreasing (IUCN, 2010) it has yet to meet the criteria that will move it to the next category of Near Threatened'. This species is not listed with CITES.

In Bangladesh there are 17 species of Columbidae, of which 2 are migratory. Emerald Dove (*Chalcophaps indica*) is one of the resident species among them⁴. According to Bangladesh Red List the status of marine and migratory vertebrates¹ in Bangladesh is: 240 species, 2 - EN, 04 - VU, 6 - LR, 4 are DD and 224 are not threatened³. A study by Anisuzzaman, 2000 indicated that Emerald Doves are not threatened in Bangladesh at present.



New born Emerald Dove at Dhaka Zoo. Photo by Dhaka Zoo

In the latest assessment in 2010 by Birdlife International, 1,240 species are considered threatened with extinction in the categories of Critically Endangered, Endangered and Vulnerable. This represents 12.5% of the total of 9,895 extant bird species in the world. An additional 838 species are considered Near Threatened and four are Extinct in the Wild, giving a total of 2,082 species that are priorities for conservation action.

Of the threatened species, 190 species are considered Critically Endangered and are therefore at extremely high risk of extinction in the wild.

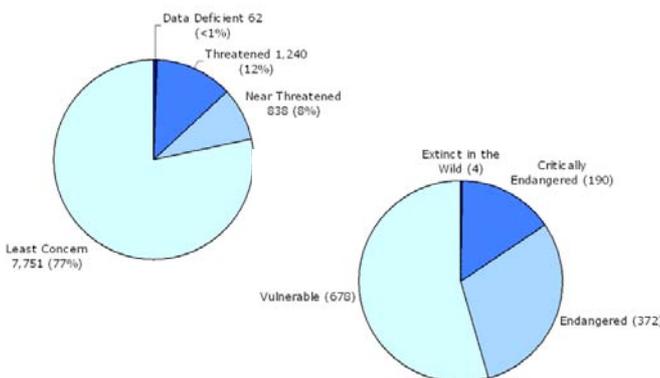
Studies on the global population of Emerald Dove by Gibbs et al.⁵ identified that the population size yet not been quantified, but the species is described as usually common, although scarce on Java and Bali and uncommon on the Ryukyu islands. Some environmentalists remarked that like many other species of birds Emerald Dove may start to decline soon. The most important threats to the world's birds are the spread of agriculture (significantly affecting 73% of Threatened bird species) and human use of biological resources, either through direct exploitation of bird populations or from the indirect impacts on bird populations of forest logging (which combined affect 71% of birds). These threats are the main drivers behind habitat degradation and conversion which are influencing 95% of Globally Threatened Bird populations.

According to Ali Reza Khan⁶ in Bangladesh the main reason for destroying the Emerald Dove is capture by human beings. In addition to that human beings destroy the bamboo trees and bushes where Emerald dove lays eggs. It is very important to take necessary conservation action to save this species from extinction.

References:

1. [http://en.wikipedia.org/wiki/Encyclopedia: Emerald Dove.](http://en.wikipedia.org/wiki/Encyclopedia:Emerald_Dove)
2. Jennifer Brown, 2010: *Husbandry Guidelines For the Emerald Dove*, p. 20.
3. M. Anisuzzaman, 2000: *Red book of Threatened Birds of Bangladesh*, p. 61.
4. Md Khalilur Rahman: *Pigeon and Dove of Bangladesh*, *Banglapeidia*, National Encyclopedia of Bangladesh.
5. Gibbs, D., Barnes, E. & Cox, J. 2001. *Pigeons and doves. A guide to the pigeons and doves of the world.* Yale Univ. Press.
6. Dr. Ali Reza Khan, 1987: *Bangladesher Bannoprani*, 2nd Part, p. 101.

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Records of Birds are threatened with extinction in the world