

Feral Pigeon occupies the nest of House Crow in Chennai, India



Figure 1. a—*Muntingia calabura* | b—*Columba livia* and *Corvus splendens* roosting around nest | c—a pair of *Columba livia* in the nest built by *Corvus splendens* | d—female *Columba livia* incubating eggs. © M. Pandian.

Populations of *Columba livia* (Gmelin, 1789) (Aves: Columbiformes: Columbidae) are adapted to live almost worldwide, except the Sahara, Antarctica, and the higher Arctic (BirdLife International 2016). They are native to eastern Europe, southwestern & central Asia, and northern Africa (Darwin 1868); and were introduced to Australia, America, rest of the Asian countries, and to many Islands (Avibase 2007). They can live with

humans in urban environments (Fitzwater 1998). They are socially monogamous and breed throughout the year. They use loose roof tiles, windows, gutters, air conditioner spaces, and building ledges as nesting sites. Their ability to adjust through behavioural modifications have enabled them to successfully adapt and colonize new and unfamiliar habitats (Shochat et al. 2010) in case they may have milder micro-climates

(Jokimaki et al. 2005) and fewer predators (Tsurim et al. 2008). High population densities of feral pigeons have been recorded on old buildings at high altitudes (Ali et al. 2013). The IUCN Red List of Threatened Species has classified *C. livia* as 'Least Concern' (Birdlife International 2016).

Although introduced, *C. livia* have integrated themselves with Indian culture and rearing them has been a popular pastime from a long time. The Mughals imported pigeons from distant countries and bred them for amusement and used them as messenger birds. At least 20,000 pigeons were maintained by Moghul Emperor Akbar (British Library 2013).

Chennai city (13.083°N & 80.283°E) occurs along the coast of the Bay of Bengal with a human population of c. 7 million. Coovum, Adayaru, and Kosasthalai rivers flow through the city and drain into the Bay of Bengal. The city experiences a maximum temperatures of 35–40°C in May–June and a minimum of temperatures of 14°C in December–January every year. The city receives most of its rainfall from north-east monsoon in October–December (Chennai 2019).

The study site was in a vacant housing plot in Bharathi Street, Korattur (13.118°N & 80.193°E). An abandoned nest of a House Crow *Corvus splendens* was found on a solitary tree (4m) of *Muntingia calabura* L. (Muntingiaceae) (6m high), 25cm DBH. The tree was used by 2–4 *C. splendens* for roosting. On 21 February 2019, a pair

of *C. livia* visited the tree for roosting and continued to stay on the tree along with *C. splendens* for four days. On the fifth day (25 February 2019), *C. livia* female started to modify the abandoned nest by adding dry twigs and occupied the nest. *Corvus splendens* started chasing *C. livia* and the battle continued through the day. In the following days *C. livia* pair started using the abandoned nest with another individual of *C. livia* along with a pair of *C. splendens* roosting nearby. On 27 February, *C. livia* female was incubating an egg in the nest. On 1 March 2019, another egg was laid. During the day, one *C. livia* pair incubated the eggs and the other stayed close to the nest, probably guarding it (Fig. 1).

Columba livia generally prefer high-rise buildings and use available vacant spaces for building nests. Pigeon populations have, thus, become successful colonizers in urban areas. Their nesting site plasticity has been shown in Switzerland (Haag-Wackernasel & Geigenfeind 2008). Johnston & Janiga (1995) had remarked that *C. livia* are highly adaptable birds, which also use trees for nest construction. In London, two pairs of *C. livia* occupied old Woodpigeons' nests in trees and continued breeding activities. This could have been due the demolition of old buildings and construction of new type designed buildings which lack nesting sites (Godwin 1960). In the present observation, a pair of *C. livia* had used an already built and abandoned nest of *C. splendens* on the branches of *M. calabura*. The present observation suggests that *C. livia* can occupy

abandoned nests of other birds, e.g., *C. spendens*, for breeding. House Crows are known to attack pigeons and kill them (Metcalf 2012). The behavioral change of pigeon populations by modifying their nesting behaviour from buildings to trees, resisting predatory birds, and occupying the already built nests of other species requires further study.

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