

A HUGE URBAN POPULATION OF BIRDS OF PREY IN DELHI, INDIA

(PRELIMINARY NOTE)

The abundance of birds of prey in the capital of India is extraordinarily impressive. As a first step towards studying it, an estimate of their population in Delhi was made during two breeding seasons (December–May) by means of direct mapping of every occupied nest or nesting territory within sample areas. There were 20 samples (from 0.15 up to 5.10 sq. km) in 1967/68 and 26 samples (from 0.60 up to 4.40 sq. km) in 1968/69. The data from the latter season are more reliable, since the entire area of the capital was evenly covered by the samples.

During 1968/69 breeding season 715 nesting territories including 679 occupied nests were registered and mapped within 37 sq. km of the sample area. So the average population density of predatory birds was 19.3 pairs per 1 sq. km. Hence, it follows that about 150 sq. km of Delhi area is inhabited by 2,900 or roughly 3,000 nesting pairs of birds of prey! The most abundant is the Black or Pariah Kite *Milvus migrans*—about 83% of the total number. The average density of the Kite population is 16.1 breeding pairs per 1 sq. km and their total number is about 2,400 pairs.

The population of large vultures (mainly *Gyps bengalensis*) is much smaller, about 400 breeding pairs or an average of 2.7 pairs per 1 sq. km. Almost all of them nest in the northwestern part of Old Delhi (mostly in mango gardens) and on the eastern edge of the city along Yamuna river.

The population of the Egyptian Vulture *Neophron percnopterus* is smaller again, less than 100 pairs or 0.5 pairs per 1 sq. km. Their territories are distributed all over the Delhi area with a preference for old ruins and temples.

Other predators (*Elanus caeruleus*, *Pernis ptilorhynchus*, *Accipiter badius* etc.) are rare, solitary pairs being found occasionally in thick gardens or parks.

It was found that the density of predators in different districts of Delhi varied greatly, from 0.5–2 pairs per 1 sq. km in building development on the southern edge of the city, up to 60–100 pairs per 1 sq. km in some areas in Old Delhi.

Study of the variation showed that there is a marked decline in the number of predatory birds from northern to southern areas of the city. The majority are concentrated within Old Delhi and the northern strip of New Delhi, areas densely inhabited by people and covered with tall trees, and which contain some slaughter houses and also meat and fish shops. There the density of birds of prey averages about 42 breeding pairs per 1 sq. km. In the green, respectable, clean and relatively less populated central part of New Delhi the density is only about 17 pairs per 1 sq. km, while in recently built-up areas of the southern third of the city which are scarcely covered with trees, the density is not more than 3 pairs per 1 sq. km.

The abundance of predatory birds in Delhi is probably due to (a) the amount of available food—garbage, carcasses of animals on rubbish heaps (including those killed by traffic), a tremendous number of small birds and palm squirrels etc.; (b) the number of trees in parks, gardens and along the streets; and (c)—perhaps the most important—the traditional good-will of Indians to all living beings, including birds of prey.

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