

# **INTRODUCTION**

## CHAPTER – ONE

### INTRODUCTION

A bird has been described as a “Feathered Biped”. The description is apt and precise and can apply to no other animal. It is as if nature was in one of her merriest, most creative of moods when creating the country’s avifauna. The diversity of India’s birdlife reflects the diversity of its ecosystem. The distribution of birds in India is dependent on several natural factors; climate, altitude, temperature, availability of food, nesting sites, major geographical features and others. Variations in bird composition and abundance are a result of this complex interplay of natural and human made factors, each ecosystem harbouring its own unique set of birds. A traveller in India will encounter birds at almost every step, from the densest natural forests to the most congested concrete jungles, in greatly varying concentration and the incredible range of forms, colours, sizes and shapes.

The birds constitute one of the most important biological organisms of the ecosystem. The study area is also an important locality for the birds because of the natural set up. The area shows plains, vallies and hilly region with different plant communities, including naturally occurring herbs, shrubs and trees.

Birds are aerial, warm blooded, bipedal vertebrates of immense importance to mankind. They maintain the ecological balance of all ecosystems such as grassland, desert and major freshwater habitats viz- ditches, ponds, Lakes, Rivers and dams etc. they also played an important role in recreation of mind.

The critical analysis on the checklist of avifauna in India for last century had worked out by late Salim Ali (2005), only few ornithologists had studied the avifauna at few discrete places in Indian subcontinent. The bird species diversity has been reported in Himalaya, Himachal Pradesh and Kashmir (Price et.al, 2003). The studies of frugivorous birds have extensively studied in South Indian forests, particularly western Ghat and Tamil Nadu (Balasubramanian and Maheswaran, 2003; Kannan and James, 1999; Mudappa, 2000; Siromoney, 1971; Subramanya and Radhamani, 1993; Hosetti, 2000).

Only few ornithologists had studied the localized bird fauna of Himalayan foothills, Kashmir and Bharatpur bird Sanctuary (Kothari, 2007). He had also reported rare endangered species such Indian great bustard, vultures, quails etc. In 1977, Chhapgar has reported avifauna of eastern coastal line of India. Earlier, Bates (1931) a British naturalist had enlisted the birds and bats in India. Recently birds of Sanjay Gandhi National Park, Mumbai and Mumbai coastal areas have been observed by the naturalists.

The birds of the Andaman Nicobar area in relation to their breeding habit have been reported by Sivkumar and Sankaran (2003). Recently from Maharashtra merely a checklist of birds from Dhule and Ahmednagar district have been reported respectively (Khurade, 1991; Vyawahare, 1991). Rana and Idris (1991) had been reported agricultural destructive role of the passerine birds.

More recently, the birds of Chilka Lake, village Bellur in Karnataka have appeared in the daily News paper 'Pudhari' and on National T.V. channel in year 2008. In beginning of 21<sup>st</sup> century, the eco-physiological scenario of Maharashtra have had altered the development of ecosystems, the great dams such as Koyana, Chandoli, Jayakwadi,

Ujani, Radhanagari, Kalamawadi had been constructed. Thus there is a considerable increase in wetland ecosystems marshes and lagoons in respective territories. Beside to this, many more irrigation tanks, reservoirs, lakes, village tanks and irrigation canals have altered the aquatic ecosystem. The extensive use of chemical fertilizers and pesticides have had also increased therefore in such a circumstances, the study of local birds, fluctuation in their population, migration if any and birds specific with their habitat deserve the keen and systematic study.

Most of the ornithologist had interested in the study of vultures and their toxicity (Peterson, Brisbin, 1998; Brisbin et.al, 2002; Lack, 1968; Walker et.al, 1992; Chhangani and Mohnot, 2004) but very least attention had paid on the local birds seasonally and distant migratory birds for their feeding activity and the thermally hostile area of their comfort. Different species of birds assemble together to form diurnal or nocturnal or mixed, feeding flocks, breeding colonies and communal roosts (Zahavi, 1971; Gadgil, 1972; Ward and Zahavi, 1973; Gadgil and Ali, 1975). The significance of bird assemblage has been discussed in detail by Gadgil and Ali (1975).

Asokan et.al in 2005 have been reported the nesting sites of common myna and the nestling growth pattern. Recently, Kothari (2007) has reported important bird areas of Western Maharashtra viz; Burnt Island Vegurla, Gangapur Dam, Lonavala, Bhimashankar, Sanjay Gandhi National Park, Mumbai, Koyana dam and Radhanagari forest reserve etc. but a very scanty information was found on Indira Gandhi Bird Sanctuary at Mayani, Sagarshwar Sanctuary, at Takari, Chandoli dam, Krishna and Yerala River with newly built weirs in a Sangli district. Many lakes percolating tanks, in arid zone of Sangli and Satara districts have been

neglected from the study of avifauna where migratory cranes retreat regularly.

A very rich birdlife is existed in India; it is due to the variety of habitats and climate. Both the Mughals and British emperors had attracted their attention towards the bird life as a hobby for the recreation of mind (Ali, 1927). The immense variety of birdlife in India and the large size, the colourful plumage of many species makes it attractive hobby of many. Over 2000 bird species and subspecies have been existed in India with increasing threat of air pollution and pesticide intoxicification, however there is considerable increase in fresh water habitats and marshes in the country so the study of migratory birds is essential.

A number of earlier reports on life of birds have had constantly added in the literature (Newman, 1981; Arora, 1992; Verma, 1994; Romer and Parson, 1978; Young, 1983; Dalela, 1988). The bird migration at Bharatpur Sanctuary, their nesting and fluctuations in number of migratory Siberian cranes at every year has also reported in the handbook of India's wild life (Krishnan, 1984). However in Maharashtra, the birds in other areas such as newly established sanctuaries, tanks, marshes and River beds have not been clearly reported. Though the check-list of birds in Sagarshwar Sanctuary have been previously prepared by Sathe (2005) but birds in Krishna River bed & irrigation canals are not reported, yet therefore present M. Phil dissertation is undertaken.