ABSTRACT

This thesis aims at describing the various aspects of the wild life in Mughal India from texts and paintings. There is no doubt that when we study the Mughal sources, we often come to know that the wild life in Mughal India had been very interesting phenomenon. The Mughal Emperors had special interest in the wild life or flora and fauna of this country. In spite of much works of governance, the Emperors like Babur, Humayun, Akbar, Jahangir and Shah Jahan and even Aurangzeb devoted their time for the wildlife in some way or the other. There were a number of reasons which encouraged the Mughal Emperors to be interested in the flora and fauna of the India. They were interested in hunting, domestication of the animals, birds and animals-fights, breeding and rearing of them and side by side were great lovers of plants, trees and flowers, etc. All these things derived them close to the flora and fauna of Hindustan.

Present thesis scrutinizes the aspects like the Mughal emperors’ love and scientific curiosity towards the flora and fauna of India, their hunting spirit, their contribution to highlight the phenomenon of wild life through their visual representation in the art and architecture, etc. Furthermore, the thesis deals with various kinds of animals, birds, their life in captivity, the royal management, treatment given to them and breeding also. On the other hand it throws light on a variety of plants, trees, fruits, flowers, herbs and medicinal plants of that period.

While much work has been done on the social, political and economic aspects of Mughal India, the wild life appears to be neglected or little touched aspect, this is the basic reason for the choice of this theme. Though there are some pioneer works on wild animals and birds done by Salim Ali, S.K. Saraswati, M.A.Alvi, Divyabhanusinh Chavda no comprehensive work on the wild life of Mughal India has yet been undertaken.
The information or the source material which enabled me to complete this work is much in Persian and English translated sources like *Baburnama, Humayunama, Akbarnama, Tuzuk-i-Jahangiri*. Besides these, a number of traveller’s accounts like Bernier, Pietra Della Velle, Jhon Fryer, Linschoten and Thevenot provide considerable information on this subject. Much information lies in the illustrations of the *Baburnama, Akbarnama, Tuzuk-i-Jahangiri, Anwar-i-Suhaili, Ajaib-al-Makhluqat*, etc. There is information in the surface embellishment of the Mughal buildings also which gives a clear picture of the flora and fauna of that period. Therefore, I have attempted to study all these textual as well as visual evidences to complete my work.

The thesis comprises eight chapters. Each chapter deals with a particular aspect of wild life of the Mughal period. These chapters are as follows:-

(i) **Mughal emperors as Naturalists : Akbar and Jahangir**
(ii) **Wildlife in Mughal Paintings**
   (a) **Illustrated Manuscripts: Baburnama, Akbarnama, Anwar-i-Suhaili, and Ajaib-al-Makhluqat**
   (b) **Album Pictures**
   (c) **Margin Paintings**
(iii) **Hunting and other Sports**
(iv) **Flora and Fauna in Mughal Architecture**
(v) **Gardens in Mughal India**
(vi) **Herbs and Medicinal Plants**
(vii) **Animals in captivity : Management, Treatment and Breeding**
(viii) **Relevance of Mughal Miniatures in describing Wild life**

The first chapter aims at covering the aspect including the natural phenomena and flora fauna of India which has been described by Babur in his Memoirs *Baburnama* and by Jahangir in *Tuzuk-i-Jahangiri*. Babur and Jahangir both were great naturalists of their times, and they were very keen observer of the flora and fauna. At the time of his campaign, Babur had to pass through a number of places, including jungles, plains, mountains or hilly regions, rivers,
towns, villages, habited and non-habited landscapes, etc. which he describes in his Memoirs. He writes in detail with enthusiasm about a number of animals, birds, trees and plants of India. He describes elephants and gives detail about different species of monkeys; affinity between the rhinoserous and the horse; and between squirrel and the mouse. He also writes about crocodiles, tigers, water hogs, frogs, fishes, wild buffaloes, blue bulls (nilgais), deers, gini cows and also about a number of birds like peacock, pigeon, parrot, ducks and so on. Babur describes a number of plants, trees, fruits and flowers like mango trees, jamun, jack fruit, jasun flower, white jasmine and large number of varieties of flora and fauna. Similarly, Jahangir mentions about a number of plants, fruits, flowers, animals and birds in his Memoirs. He also notices animals like cheetah, tiger, lion, deer, wild buffalo, and elephants. He personally took interest in hunting, domestication, management, treatment, breeding and rearing of the animals. His description of plants, trees and flowers is scientific and very detailed. The descriptions related to them in the Baburnama and Tuzuk-i-Jahangiri prove that both the emperors Babur and Jahangir were great naturalists of their time.

The second chapter highlights the wildlife in the Mughal paintings, i.e., the illustrated manuscripts of the Baburnama, Akbarnama, Tuzuk-i-Jahangiri, Anwar-i-Suhaili and Ajaib-ul-Makhluqat, etc. In this chapter I have made an attempt to describe different aspects related to the depiction of animals, birds, plants, flowers, etc. The Mughal emperors had special interest in the art of painting. Therefore, a large number of paintings on the theme of natural history were made by excellent painters. After the death of Babur in 1530 A.D., his son Humayun became the emperor but the rise of Sher Shah forced Humayun to leave India and stayed at the court of Shah Abbas of Persia. After the weakening of Sur regime Humayun got an opportunity to capture the throne of Delhi. From Persia he brought with him some excellent painters, namely Khwaja Abdus Samad and Mir Sayyed Ali. During the reign of Akbar the painters like Basawan, Manohar, Bishandas, Daulat, Govardhan, Lal and Miskin executed a large number of paintings including hunting scenes, animal
fights and different species of the birds, plants, trees, fruits and the beautiful flowers, etc. Similarly, Jahangir paid a considerable attention towards the development of art of Manuscript painting and album pictures. He established a royal atelier in which painters like Mansur, Bichitra, Abul Hasan, Murad and Pidarath made excellent paintings including pictures on a great variety of the flora and fauna.

The third chapter is related with hunting and other sports. It is a well known fact that the Mughal emperors right from Babur were very fond of hunting wild animals and birds. The hunting (*shikar*) had been a pastime for his ancestors like Chingez Khan and Timur. So, the Mughals also continued it for their enjoyment. The emperors normally went on hunting when they were on expeditions. Besides, they also preferred hunting in day to day life. The hunting operations were well organised, well planned and high security was maintained.

Besides, common hunting operations, the Mughals created a number of hunting grounds (*qamargahs* or *shikargahs*) situated at different places, i.e., Bari, Hisar, Sunnam, Bhatinda, Bhatnir, Nagaur, Narwar, Palam, Shekhupura near Lahore and Jatilabad, etc. Abul Fazl mentioned in the *Ain-i-Akbari* about the methods, tactics, kinds of hunting, and fields of hunting. The Mughals used different hunting equipments like drums, *naqqaras*, ropes, chains, and nets, etc. Quite often they used weapons like swords, spears, guns, matchlocks bows & arrows for hunting. Even trained *cheetahs* and dogs were also used at the time of hunting the wild animals particularly deer. Apart from the emperor’s nobles and soldiers also participated in hunting campaigns. We have information that Nur Jahan participated in hunting campaigns. In brief, during Mughal India hunting was also popular among the common people in their everyday life.

The fourth chapter gives a clear glimpse of the flora and fauna depicted in the art and architecture of the Mughals. The Mughal emperors being great lovers of flora and fauna tried to use it in the decoration and surface embellishment of their palaces, forts and royal buildings, etc. Some of these
buildings like Agra Fort, kutub khana ( Fatehpur Sikri ), Buland Darwaza, Humayun’s tomb, Akbar’s tomb, Jahangir’s tomb, Shan Jahan’s Fort at Delhi, and the Taj Mahal at Agra are the finest example of architecture in which depiction of flora and fauna testify deep affection of the Mughals for the natural surroundings comprising plants, and flowers, etc.

The fifth chapter of thesis describes the ornamental gardens (chahar-bagh) of the Mughals which integrates importantly the flora and fauna. The founder of the Mughal dynasty Babur was very much inspired from the composition and layout of the gardens of Central Asia and Persia. Another important reason was his deep affection for the flora and fauna. On the other hand the climatic condition of India also played a major role to bring this idea of creating formal gardens in the mind of Babur. So, Babur created gardens like Aram bagh, Bagh-i-Wafa (Garden of Fidelity), Bagh-i-chenar. Similarly, Jahangir also created beautiful gardens like Shalimar bagh, Nishat bagh etc. A large number of trees: mango, jamun, ashok, banyan and bel and many other fruit trees and flower plants were planted in these gardens. These gardens also provided shelter to the animals like monkeys, rabbits, cats, deer and birds like peacock, sparrow, crows, pigeons, cuckoo and parrots etc.

The sixth chapter deals with the herbs and medicinal plants which were commonly used to cure the various diseases during the Mughal period. While the Ayurveda has been old and very important medical science in India, during medieval period the another branch of the medical science namely Unani medicine had become very important. During the Mughal period we find references of the use of many plants, fruits, and seeds like Indian fig, pepper, ginger, clove, cardamom, camphor, etc. in the form of medicine. We have references also about the establishment of hospitals.

In the seventh chapter, I have made an attempt to explain in detail about the animals in captivity, their management, treatment and breeding. Abul Fazl writes that Akbar kept a large number of animals and birds for various purposes like trained cheetahs, dogs, deer, elephants, horses, camels, mules,
buffaloes and cows, etc. Similarly, birds like *saras*, falcon (*baz*), parrots, ducks and swans were also kept. Both Akbar and Jahangir tried to keep these animals and birds under an organised management system. Every animal was categorised and food was provided according to their size and capacity. A large number of servants and keepers were appointed to look after them. Even treatment or medical facilities were also given to these animals and birds. The main purpose to keep these animals and birds was the breeding, and their engagement in entertainment and transportation. There are detailed descriptions of elephants, horses, deers and other animals and birds in the *Ain-i-Akbari* and the *Tuzuk-i-Jahangiri*. The animal-fights and betting was also common feature during Mughal period. Therefore, the Mughal emperors tried to experiment through breeding to produce new races and to thus safeguard a number of species of animals and birds.

The eighth chapter is purely based on the Mughal miniatures which contain a lot of information on the wild life of the Mughal period. It is true that with the inception of the Mughal rule in India, painting received a mighty impetus. Thus, the greatest contribution to the Mughal painting in Indian art is the portrait accompanied with the subject of realistic representation of the birds, animals and trees, plants and flowers, manifesting both the Indian and Persian techniques. During Jahangir’s time a large number of pictures of birds and animals were drawn by Mansur, Manohar and Abul Hasan. Their work, by and large, reflect the wild life of the Mughal period. The unique feature of these paintings is the naturalistic depiction of the animals and birds in their real form and actual habitat. Additionally, the border designs and the pages of calligraphy are fully decorated with a number of drawings of birds, animals and tiny plants with blossom.

Thus, Mughal India had been very favourable for the maintenance and safe keeping of the wild life, or the flora and fauna. The emperors like Babur, Humayun Akbar, Jahangir, Shah Jahan and even Aurangzeb contributed much to the understanding of an importance of the flora and fauna of India.