

**BNHS: ITS ROLE AS SCIENTIFIC AND CONSERVATION ORGANIZATION DURING THE COLONIAL AND POST - COLONIAL ERA**

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**Abstract:**

*The Bombay Natural History Society (BNHS) founded in 1883 is recognized as one of the leading conservation research organizations in the world. It is a non-governmental organization. It has been collecting data on the specimens of natural history throughout the Indian sub-continent, through various mammal and bird surveys conducted throughout the country, it played a key role in disseminating scientific knowledge about them. Various specimens of flora and fauna were sent to the BNHS for identification and preservation. The movement which was started for exchanging notes on natural history and deposition of the specimens collected by hunters resulted in one of the finest collections and was the oldest natural history collection in India and is a part of the national heritage of India.*

*The BNHS zealously campaigned for wildlife preservation by writing to forest officers, sportsmen, and the Government for their opinions, their series of editorials and articles in the journal created awareness about the need for conservation. They persuaded the authorities to evolve an enlightened policy towards wildlife and provided a platform to naturalists. After independence (1947-1972) it played a pioneering role in spreading of scientific information and research through its various environmental projects like bird migration project, conservation campaigns for saving endangered species like the tiger, creating awareness through "Nature Education" Programmes, support for establishing National parks at Borivali, Bird Sanctuary at Karnala and Mahim..The Non-Government organization( NGO) is an organization that tries to achieve social or political aims but is not controlled by the government. NGOs are distinctive as they are voluntary organizations who do not operate for profit. Before independence, there was little scope for non-government activity particularly in the field of conservation of nature and natural resources as the emphasis was on hunting, which was the rulers prerogative for entertainment. However, in the latter half of the 19th century, some NGO's like the BNHS was encouraged by British hunters, and they flourished due to their patronage. In the field of Natural History, there were two types of organizations, one was science-oriented, devoted to the setting up of museums, organizing natural history expeditions and collections. The general objective was the acquisition and dissemination of knowledge.*

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**Introduction**

The Bombay Natural History Society (BNHS) is recognized as one of the leading conservation research organizations in the world. It is a non-governmental organization which has focused on the natural history of South Asia, particularly India. It has been collecting data on the specimens of natural history throughout the Indian sub-continent, for the dissemination of knowledge about flora and fauna using lectures, field trips, literature, expeditions

and to study wildlife-related problems and recommend management plans to conserve wildlife and its habitat. It has also undertaken field research projects on bird migration and has conducted studies of specific endangered species of wildlife and their habitat. Through environmental education, it imparted knowledge and created awareness about the need to conserve wildlife. It has played a leading role in environmental awareness in India. It has undertaken a wide range of projects in collaboration with both local and overseas counterpart organizations on birds, reptiles, mammals, natural history, and the impact of developmental programs on wildlife.

The Bombay Natural History Society was founded on 15 September 1883 by eight residents of Bombay to exchange notes and observations on Zoology and to exhibit interesting specimens of animal life. Dr. MacDonald, E. Aitken, Col. C. Swinhoe, J. C. Anderson, J. Johnson, D. A. Maconochie, Dr. Atmaram Pandurang Tarkhadkar, and Dr. Sakharam Arjun Ravut were the eight founding members of the Bombay Natural History Society. The Society provided a meeting place for wildlife enthusiasts both Indian and Western, as well as private and official. Sponsoring field studies of animals, fish, and birds of the subcontinent, the BNHS quickly established standards respected internationally for the recording of natural history. It became a hunters club and gradually emerged as colonial India's national lobby for controlling hunting.

### **Establishment of the Natural History Museum**

The possibility of establishing a museum was not contemplated initially. The first few meetings of the Society were held in the Victoria and Albert Museum at Byculla. In 1884 Mr. H. M. Phipson, who was the backbone of the society from March 1886 to 1906, offered the use of a room in his office in Fort, which resulted in increased membership and better attendance at the meetings. It continued to serve as the headquarters of the Society until December 1885, until more suitable premises were obtained. In 1885 the Society divided its activities into separate sections, to ensure more scientific treatment of zoological phenomena and to gather material for building up the reference collection for the journal. Five sections were formed each of the members specially qualified in the different branches of natural history, i.e., mammals, birds, reptiles and fishes, insects and other invertebrates, and Botany.

### **Collections of the Society**

Since its inception in 1883, the Society was involved in the study of flora and fauna of the Indian subcontinent. Various specimens of flora and fauna were sent to the BNHS for identification and preservation. The movement which was started for exchanging notes on natural history and deposition of the specimens collected by hunters resulted in one of the finest collections and was the oldest natural history collection in India and is a part of the National Heritage of India. They included some 20,000 mammals, with the skins of many rare and handsome species, and fine heads of markhor, ibex, and many kinds of deer and antelope found in India. There were 23,000 birds including the Great Indian Bustard, which was threatened with extinction, and the extinct pink-headed duck. The skull of the Asian Cheetah was one of the precious assets in the collection; this species was supposed to be extinct in the wild. Those specimens were also properly classified and arranged systematically in 64 cabinets. Therefore, the principal feature of the work done by the Society was the increase in the knowledge of the smaller mammalian. As its members included many hunters of big game, the Society gradually acquired a fine collection of horns, heads, and skulls of Indian mammalia. New collections were added over the years. In 1915, one new genus and 13 new species were added to the list of the mammalian fauna of India. This fauna was acquired by the labours of collectors employed by the society.

The early collections were initiated by contributions from early members of the society, mainly the British, Army, Police and Civil Service Officers, who had an affinity to birds, butterflies, mammals, reptiles, and the whole world of nature. These collections were a result of extensive surveys undertaken by naturalists, who collected specimens

from different parts of the subcontinent. The primary focus of the collection was on research and education. Apart from the mammal collection, there were about 20,000 specimens of birds in the collection. Most of the bird specimens were obtained in the late 1920s from members who had obtained them in the course of their own shikar trips. The bird collection was arranged as per the Synopsis of Birds of India and Pakistan by S.D Ripley, one of the reputed ornithologists associated with the BNHS from 1948-1987. Most of the specimens of birds were collected during special surveys. Apart from the collection of specimens, the bird surveys resulted in some of the pioneering publications in the field of ornithology like the Birds of Kutch (1945 ); Indian Hill Birds (1949):The Birds of Travancore and Cochin (1953 )revised and renamed as Birds of Kerala (1968); the Birds of Sikkim(1962 ) and the Birds of Eastern Himalayas. The collection also formed the basis for the ten volumes of Handbook of Birds of India and Pakistan (1968 -1974). The collection was unique in many ways, as it comprised of a large number of specimens of rare, endangered and extinct species of birds. The most important holding in the bird collection was the specimens of the Pink-headed Duck, considered to be extinct as the last record of the bird was noted in 1935. The Herpetology section had a unique collection of herpetofauna, i.e., .amphibians and reptiles. The specimens of amphibians were mainly deposited by the experts from BNHS who had carried out short surveys in different parts of the country. The BNHS collections helped in imparting basic knowledge about the faunal diversity to a wider audience. It thus helped in popularizing the idea of conservation. For this purpose, students, trainee forest officers, and forest rangers regularly visited the BNHS. The collections were also the basis of publication of various books like *The Book of Indian Birds* (1941) by Salim Ali and *The Book of Indian Animals* by S.H Prater (1948). Natural history collections contain information that is pertinent to our everyday lives, ranging from environmental and human health issues to the pursuit of basic scientific knowledge. The collections formed the base for many studies related to biological science and can be considered as a biological goldmine and a treasure trove.

The majority of the specimens were collected during the Mammal Survey of India undertaken by society from 1911 to 1923. The scientific results of the surveys were published in BNHS Journals. For the Mammal Survey which was undertaken in India in 1891, naturalists had to rely for information on Dr. J.C Jerdon's work "Mammals of India" which lacked in details about distribution and completeness. Later in 1884 another work by R.A Sterndale on 'Natural History of Indian Mammalian,' although, a popular work did not add to knowledge. As more information was needed and many things were not known about animals, especially about the habits and distribution of nearly all mammals. Secondly, due to the lack of fine specimens, several species were united under one name, this lacuna hindered the study about the extent to which different species varied. Therefore, to remedy the defects, it was decided to undertake the Mammal Survey. In 1903 the Bombay Government agreed to contribute an annual sum of Rs. 2,500, which was increased in 1907 to Rs. 5,000 to permit the Society to engage a trained assistant from Europe to supervise the museum. For the survey, the Bombay Government finally agreed to grant an amount of 2500 for the Mammal Survey fund. In 1914 the Society was given a special additional grant of 10,000 for its Mammal Survey. Although grants were sanctioned by the British Government for the survey, the amount was paltry, considering the vast nature of the survey.

**Role in Scientific education and Awareness** - It also played a vital role in scientific education and public awareness. In 1920, the BNHS tried to arouse public consciousness by publishing informative charts and identifying a large number of snakes, both harmless and poisonous for doctors and district officials. The chart published by the BNHS for identifying poisonous snakes was adopted by the Bombay Government for use in schools, hospitals, and dispensaries. The chart helped in creating awareness about poisonous snakes and preventing deaths due to snake bites

**Bird Migration Project** - Bird Migration Project was another significant activity developed by the Society. It was

of far-reaching international public health importance, as the investigation of the problem of bird migration had a bearing on the transcontinental dissemination of arthropod-borne viruses. In India, the first attempt at bird migration studies was undertaken in 1927 through a small scale bird banding program by the BNHS with the Maharaja of Dhar State to band migrant ducks to establish their origins. Bird banding continued till 1934 through the financial support of a few other rulers of Indian states. Though the total number of birds ringed and recoveries made were meager, the recoveries furnished the first positive evidence for the migration of the Siberian crane, and central and northeast Asian origin of ducks that wintered in the Indian region. The year 1959 was significant for Indian Ornithology when the first-ever organized scheme for bird banding and migration study in the Subcontinent was undertaken by the BNHS. Later on bird ringing camps at various places at Rann of Kutch, Bharatpur, Chilka Lake. The first major project started under the guidance of Salim Ali in 1963-64. With the financial sponsorship of World Health Organization (WHO) and virus research laboratories in Poona and U.S.S.R, the Society was operating a project for netting and marking migratory birds with numbered- return-addressed aluminium rings to study the origins of the numerous species that visited India in the winter months. This project was a significant contribution to the knowledge of the public health aspect of bird migration, their role in spreading viruses affecting man and animals.

One of the pioneering Ornithologist of BNHS, Dr. Salim Ali's approach to wildlife conservation was for down-to-earth, practical purposes. He believed that the best way to ensure the preservation of birdlife was to highlight the useful role played by birds in controlling insect pests both in agriculture and forestry. While some birds like parakeets caused damage to food crops, many others were useful to the crops. His practical approach to conservation was reflected in his keen interest in Economic Ornithology. According to him, there should be a scientific investigation of birds from an economic point of view. It was one of the subjects, which should be of interest in a predominantly agricultural country like India. He stressed the need for scientific research in economic ornithology both in the field and in the laboratory.

### **Influence on Government Policies**

The Bombay Wild Birds and Wild Animals Protection Act was passed in 1953 due to the efforts of the BNHS. The BNHS also assisted the Expert Committee set up by the Government of India to make recommendations for establishing national parks and sanctuaries, and the Policy statement incorporated in the report was based on the draft presented by the Society. The Society was instrumental in arranging an expert to advise the Government of Maharashtra on the planning of the proposed National Park at Borivali in the Bombay suburban area. It also organized a Leopard Study Group with the principal objective of studying the status of the animal in the Park and made recommendations for its protection.

The Society emphasized the need to preserve the small area of forest around Karnala Fort in Kolaba district, and to have it designated as a Bird sanctuary. It was Zafar Futehally's of the BNHS, whose efforts resulted in the establishment of the Karnala Bird Sanctuary in 1968, which would have been otherwise lost to industrial development. A major effort of the BNHS was to have a Bird Sanctuary in Mahim Creek within Bombay city; the proposal had received considerable support from many quarters and attempts were made to save the area from further degradation.

Nature appreciation through nature education in schools became an important activity of the Bombay Natural History Society. The aim was to train school children so that they could provide leadership in the future for nature conservation. The Project, since its inception, was financed by the Government of Maharashtra. Conservation awareness was created in schools using talks, films and other visual aids in the classroom, by guided lectures and tours to the Natural History Section of the Prince of Wales Museum, the Zoo, and the Aquarium. Field trips or"

Nature Rambles' were usually carried out in the beautiful countryside surrounding the city like for example the island of Salsette. This Scheme was later on extended to Poona, Bassein, Virar, and Ahmedabad. During the field trips, children were exposed to various facets of nature and were taught to recognize common birds, common trees, seasonal flora, insect life, and to understand the general environment as a whole.

Another initiative of the BNHS was the protection of the endangered tiger. The position of the tiger particularly had been a cause for growing concern, and the assessment of the tiger population made by the BNHS and the reports made by the Forests Officers in India was a basic and useful document for wildlife conservation. J.C Daniel's paper on "The Tiger in India: In Enquiry -'1968-69' -1970 provided the impetus for the Project launched in 1973. In the article he expressed deep concern about the status of the tiger in India, which was under the threat of extinction, its population had decreased due to progressive deforestation of most of the tiger habitats and uncontrolled and unethical shooting and poisoning of tigers.

#### **Conclusion-**

The BNHS, through its expertise, publications, various mammal and bird surveys, collections, and numerous environmental projects like bird migration project, conservation campaigns for saving endangered species like the tiger contributed immensely to wildlife conservation in the colonial and post-colonial era. Through its "Nature Education Programmes, the study of flora and fauna was made popular among the common people. It helped in establishing National Parks at Borivali, Bird Sanctuary at Karnala and Mahim. suggested amendments to the Wild Birds Protection Act, 1887, and the Wild Birds and animals protection act 1912 and passing of the Wild Animals and Wild Birds Protection Act, 1951.

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