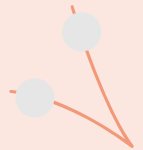
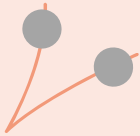




Birdwatching and its role in Environment Protection

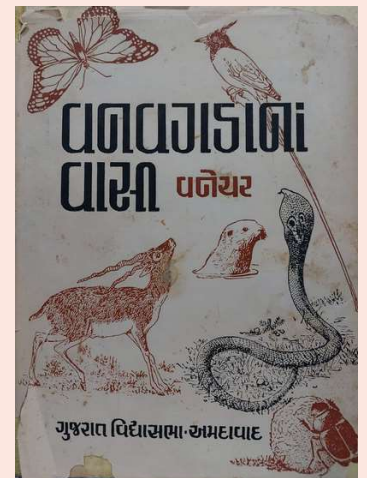
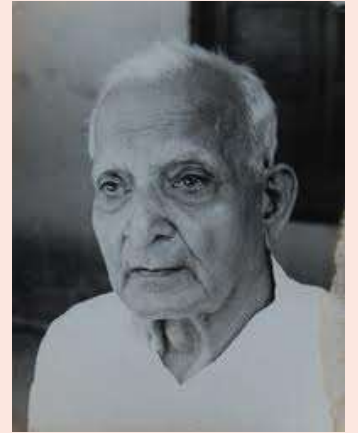
Dr Bakul Trivedi





Harinaryana Acharya and Vanvagdo Vashi

- 1898-1984
- 1924 onwards study of natural history
- 1934-40 *Vanvagda na Vasi* column in Kumar
- Book Published in 1979
- Received Ranjitram Suvarn Chandrak

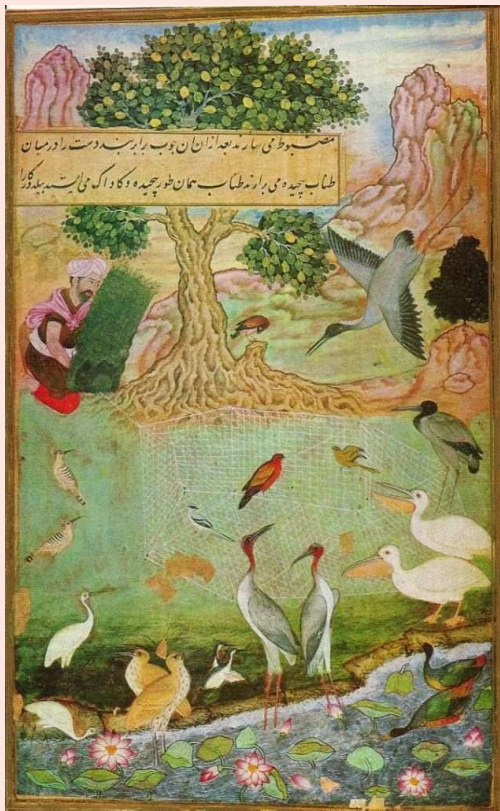


- Harinarayan Acharya Studied breeding biology of Sarus in 1952
- Incubation period 32 days
- Autobiography of Emperor Jahangir and English translation of 'Tuzuk-e-Jahangir' by Alexandar Rogers and H. Beveridge

Mughals : 13-17 centuries A.D

- Baburnama
- Memoirs of Jahangir

Baburnama



Jahangir

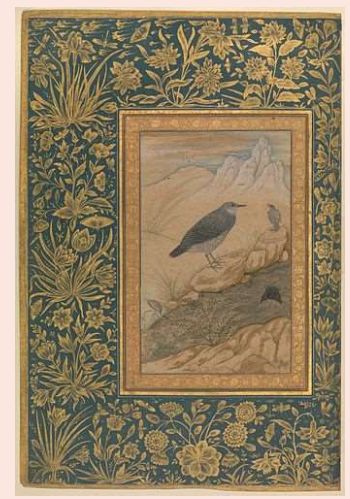
Tuzuk-e-Jahangiri

Jahangir recorded descriptions of flora and fauna that he encountered in his life. He commissioned Ustad Mansur to paint detail illustrations.



Ustad Mansur (Painter and Color artist)

- Titled as *Nādir-al-'Asr* ("Unequaled of the age") by Jahangir
- Ustad Mansur was not the only artist in the Mughal court to illustrate flora and fauna.
- The most significant paintings, in terms of zoology, are those of the Siberian crane and the dodo
- A crater on the planet Mercury is named in honor of Mansur.



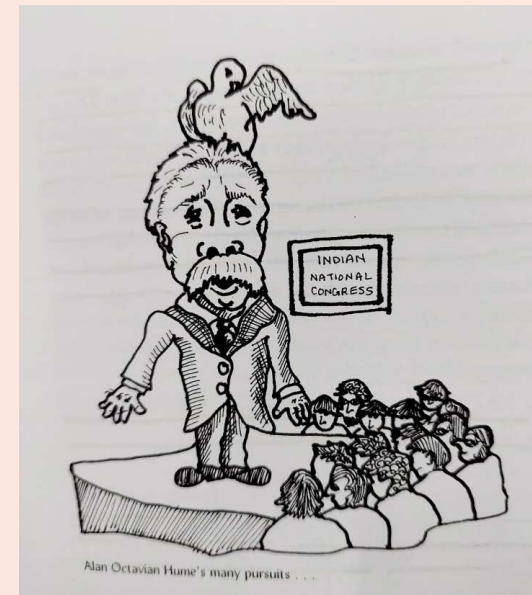
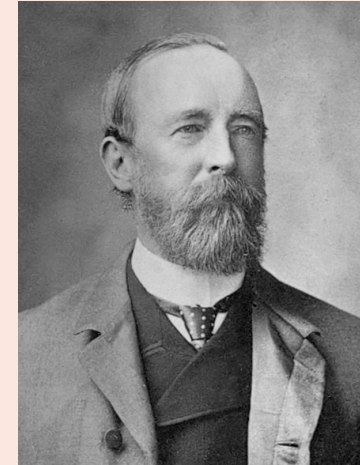
“In Hinduism there is a bird called Papiha of a sweet voice, which in the rainy season utters soul-piercing lament. As the Koyel lays its eggs in the nest of a crow and the latter brings up its young so I have seen in Kashmir that the Papiha lays its eggs in the nest of the Ghaughai, and the Ghaughai brings up its young.”
Ghaughai referred to here is probably some species of
Babbler

A substantial portion of Ornithological work has been done by British residents in India

- 17th Century: Edward Buckley, a surgeon from Madras made drawing and descriptions of many birds. 22 Indian birds were used by the Father of Binomial nomenclature, a Swedish Linnaeus.
- In 1790 Dr John Latham published India Ornithologies – compiled existing knowledge of India Birds and first time gave scientific name.

Allan Octavian Hume

- Better Known as Founder of Indian National Congress – was also considered Father of Indian Ornithology
- Publication *Stray Feathers*: 1872-1888
- Made Several expeditions almost solely to study ornithology, the largest being an expedition to the Indus area begun in late November 1871 and continued until the end of February 1872.
- Remarkable Naturalist – He collected 60000 skins

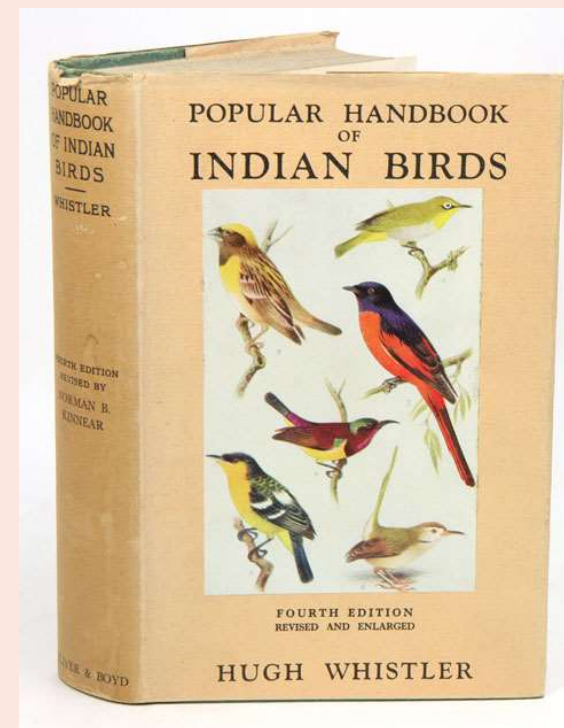


Fauna of British India – 4 Vol by Eugene W. Oates and W.T. Blanford between 1889 and 1898

First 3 to 4 decades of 20th Century number of people contributed

Hugh Whistler, Claude Ticehurt, A.E. Jones, and Stuart Baker

Its fascinating lesson of History that most of these British (and other nationals) who contributed to our Knowledge of birds were not trained ornithologists: they were doctors, engineers, administrators, army officers, and policeman.

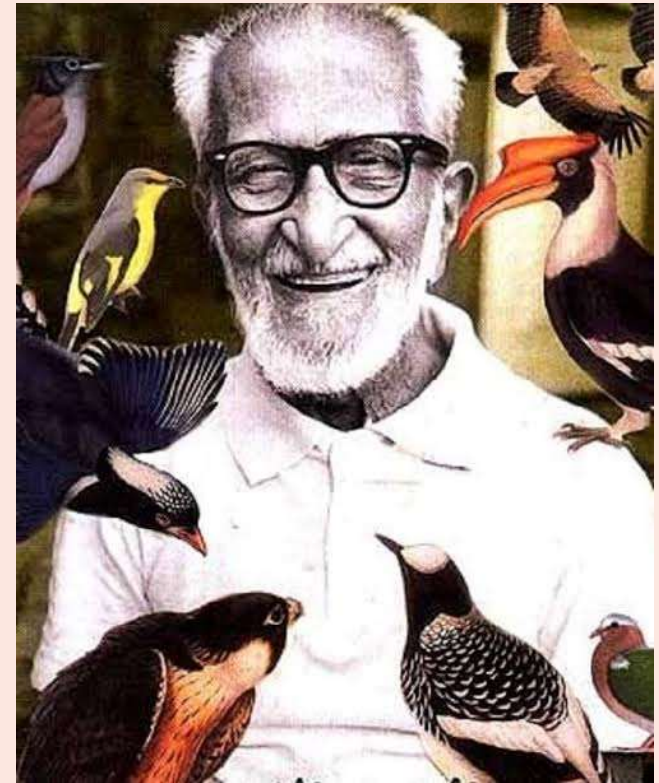


Dr. Salim Ali 1896-1987

In 1908 a boy in Bombay shoots a bird with an airgun and the event creates a History
Birdman of India

Did systematic bird surveys across India and wrote many books that popularized ornithology in India

‘The Book of Indian Birds’



The Rulers of Kachchh

'Kachchh was blessed in having bird-loving rules' – Salim Ali

Maharaja Pragmalji II 1839-1875

Entertained an idea of a Natural History Museum

Stoliczka, A.O Hume

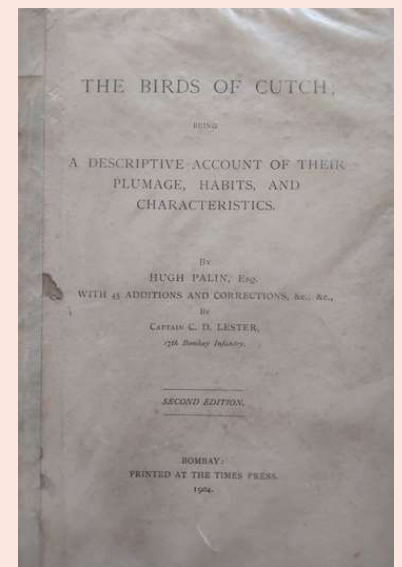
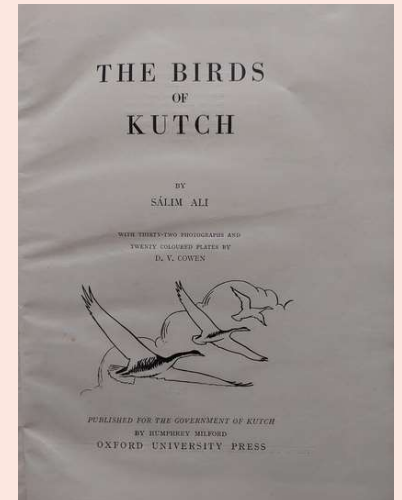
1887 – 'Birds of Kutch' Hugh Palin

Maharaja Khengarji III 1876-1942

"Birds of Kutch" Revised in 1903 with 45 more birds by C D. Lester

Pkharoo Khengarji invented Flamingo city in 1896.

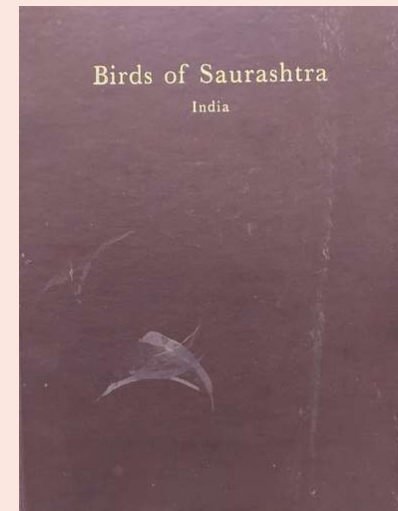
Salim Ali published the third version of "Birds of Kutch" in 1945. He visited "Flamingo city" in 1943.



Raol Shree Dharmakumarsinhji

1917-1986

- Did systematic study of birds in the province of Saurashtra.
- 1955 – “Birds of Saurashtra”.
- Enthusiastic hunter, a collector of avian eggs, and also a keen falconer with an exquisite collection of birds from the genus *Falco*.
- Did field study of Great Indian Bustard and Lesser Florican.
- India's first Honorary Wildlife Warden, Vice Chairman of the Indian Board for Wildlife, and a member of the Rajasthan and Gujarat Wildlife Advisory Boards.
- Publications: Birds of Saurashtra, Sixty Indian Birds, Reminiscences of Indian Wildlife



Bird watching

- RSPB – established in 1889 (Royal charter Award in 1904) owns 200 private reserve and passed 1 million membership in 1997.
- Audubon Society: 1896
- 1900: Frank Chapman proposed 1st annual Christmas bird count as an alternative to the traditional Christmas side hunt.

Lavkumar Khachar 1932-2015

- Naturalist Par excellence
- Recipient of 'Excellence in Ornithology Title' from BNHS
- 'Order of Merit' from WWF
- Instrumental in notification of 'Khijadiya Bird Sanctuary and 'Nandadevi National Park'
- Authored '60 Indian Birds'
- Pioneer of 'Nature Camping' Movement.
- His slogan... "BACK TO NATURE"



Bird watching

You not only see the birds but also observe its inter-relationship with its own natural environment.

Birdwatching: A Window one sees the nature with a
perspective

Nature Conservation

Man's impact on environment is largely disastrous

The Web of life

- Are Warblers less important than Tigers ? Madhusudan Katti
- 18 sp. Of migrant leaf warblers.
- Southern Western Ghats: 6-8 Warblers in 1 hectare
- 3 Insects every minute, 180 per hour, 1980 per day (11 waking hours)
- For 6 individuals 12000 insects perday X 200-250 days

Great Horned Owl

Consumes 2 rats every single night

Theoretically one pair of rats can produce 880 rats in one year.

Symbiotic relationship

The relationship between birds and plants. They have co-evolved to adapt to one another.

‘But for the trees, the insects would perish; but for the birds, the tree would perish; and following this inexorable law of nature to its conclusion... but for the trees, the world would perish.’

Birds play a role in the process of natural regeneration and the contribution they make towards the sustained productivity of diverse ecosystems.

If there are any disturbances in any species of either plant or animal life, its repercussions are felt all the way through the whole kingdom of nature. Disruption in the equilibrium of ecosystems will result in the serious problem of land degeneration and desertification.

Most of the time it's the Human interference which destroys the equilibrium of nature.

Extinction of Birds

- Dodo: Mauritius before 300 years
- Pink-headed Duck: Last sighted in 1935
- Mountain Quail
- Jerdon Courser

Since the year 1600, over 150 birds forms have become extinct the World Over.

Habitat Destruction

- Forests -> From 40% before 100years to 12% today.
- Timber, Change in land use, Dam construction, Grazing

Habitat Destruction

- Wetlands: Drained, reclaimed, pollution, exotic plants, fishing, poaching, eutrophication.
- Grasslands: Change in landscape.

Pesticides

- Animals eating food contaminated with Pesticides and will store them in body fat.
- At each stage in Food chain pesticide dose increases.
- The non target sp. at the top of food chain is most affected. This is known as Bio magnification

Wildlife Protection Act 1972 amended in
2002

Conservation of Birds and their habitats

- In situ conservation : National Parks, Sanctuaries, Biosphere reserve
- Ex situ conservation

People's concern for Conservation

- Sarus Crane
- Bishnois
- Kheechan
- Kokkar Bellur
- Chabutaras

What are Birdwatchers and Ornithologists doing?

- Birds have proven to be successful indicators because they are highly visible and respond to wide variety of environmental impacts
- Birds have always reminded symbols of Conservation

- Bird watchers, lovers, naturalists all are very unique species of humankind.
- They have been observing, counting, and banding them
- They report status of the birds
- They are generating data
- They are disseminating information about birds
- They are sensitizing people for nature conservation through birds
- They are ringing alarms bells for conservation action when required
- They campaign for the declaration of protected areas.

'Vihang'



Flamingo Gujarat

www.flamingogujarat.com



**Thank you
Happy Birding**