

Fauna and Flora : Contributions by the Indian Army Officers 1778-1952

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Indian Army's heritage of valour on the battle-field is a bi-word in the annals of world military histories. But the Indian Army's equally distinguished and scholarly heritage in the field of India's natural history, remains generally unknown and unsung.

A significant feature of the Indian Army has been that an officer was expected to combine business with pleasure without detracting from his devotion to the profession. Wherever the path of duty also inspired the officer to indulge in his creative urges, he would be considered foolish not to spend his time agreeably.¹ This was the liberal professional milieu which aided and encouraged many officers to gain recognition as men of contemporary merit in pursuits way outside the ambit of soldiering. So, a good many Army officers would find entry to the 'Hall of Fame' of natural history. And a few among such officers carved permanent niches in the world of India's fauna and flora.

Much like the gentleman-cadets of today, they all entered the Army around the age group of 18 to 20 years with school education only. Those attracted to exploration of nature, were all self-taught, on the job, natural history field investigators. Just a few who were from the Indian Medical Service (IMS) had a brief exposure to university education in Botany and Zoology.

John Keay, a contemporary writer of travel and history, sums up best pioneering role of the Indian Army officers in the exploration and documentation of India's fauna and flora thus : "The men who discovered India came as amateurs; by profession they were soldiers and administrators. But they returned home as giants of scholarship."

Setting the Trend

There are no two opinions that Major General Thomas Hardwicke was the colossus of the Indian natural history. It would

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be no exaggeration to state that story of Indian natural history begins with the life story of General Hardwicke. He arrived at Fort William in 1778 as an artillery cadet in the Bengal Presidency Army. Fought in the Rohilla and Mysore wars and was commended for gallantry on the battle field. By 1809, he rose to command the Bengal Presidency Artillery. His span of duty lay mostly in what is today Orissa, Jharkhand, Bihar, UP, Bengal, Assam and Bangladesh. Outside the profession, his interest lay chiefly in collecting specimens of birds, mammals, insects, reptiles, bird nests and eggs and bird skins. In the process, he discovered several new species and in due course more than a dozen were named after him. As he expanded his scope, he employed a *shikari* on his house-hold staff who was tasked and trained to add new specimens to his collection. He also enthused friends to add to his collection. Thus a counsel stationed at Almora sent him what became the first specimens of the Koklas and Cheer pheasants, and three species of Jays. Dr Wallich provided him the first specimen of the Blood pheasant which Hardwicke generously named "Wallichie".

Texidermy was not fully established and photography was yet to be invented. So Hardwicke employed the most talented artists of Bengal to paint, draw and sketch the specimens of his collection. Herdwicke bequeathed his entire collection of specimens and paintings to the British Museum, London where it formed the first ever comprehensive display of Indian natural history objects in the world, in 1820.² He, then collaborated with the British Museum to publish "Illustrations of Indian Zoology : Chiefly Selected from the Collection of Major General Hardwicke", in 2 volumes in 1830-35. This became the first book on the subject.

Captivated by the Birds of India

Birds were and are inseparable from the domestic life of every inhabitant of the cities and villages of India. No wonder, the study of Indian natural history began with its bird species. And because the call of duty committed the Army officers to every corner of India, the constant exposure to birds cast a tremendous attraction on them. In the ten year period following Hardwicke's departure from India, the void was admirably filled by Captain James Franklin of the 1st Bengal Cavalry and Captain W H Sykes of the Bombay Presidency Army. Ostensibly on tour of duty from Calcutta to

Saugar via Benaras in 1826, Franklin collected 156 species of birds. About the same time, Captain Sykes while conducting the Revenue Statistical Survey of the Deccan also picked up another 236 species of birds.

The next two to be captivated by birds were Lieutenant Colonel R S Tickell (Commissioned in 1st Native Bengal Infantry as lieutenant) and Major T C Jerdon. In due course, Tickell was rated among the best field naturalists of India, discovering eleven new species of which four were named after him. He had logged 285 species in all. Jerdon, a surgeon-Major in the Madras Presidency Army operated in today's Andhra Pradesh, Tamil Nadu, Kerela, Karnataka and later in Madhya Pradesh and Uttar Pradesh so that by 1858 he had compiled a list of 420 species.

The greatest break for Indian ornithology came when Lord Canning, the Viceroy visited the hospital at Darjeeling where Jerdon was among the patients of the Mutiny. Jerdon seized the opportunity and presented to the Viceroy his dream of compiling books on Birds and Mammals of India. Impressed by Jerdon's zeal and professionalism, the Viceroy moved him post haste to Fort William. For the next six years Jerdon was allowed to travel anywhere in India. And the result ? The first book, "Birds of India" in 3 volumes in 1862-64, authored by Jerdon covering 1,008 species of a total of 1,230 now known to science. This book remained the definitive text on India's birds for the next 100 years !

Trailing the Mammals

Unlike the birds, literally on the door-steps, mammals were fewer and even dangerous to close with, deep in forest and up the Himalayas. The chief persona dramatis on the science front in the this field also remained General Hardwicke, Captain Sykes, Colonel Tickell and Major Jerdon. All of them discovered several species of which a few carry Hardwicke's name. Again, the credit for the first book, "Mammals of India" was claimed by Jerdon in 1867. However, where animal behaviour, habitats and their breeding biology were concerned, the mass of inputs came from naturalist-sportsmen (*Shikaris*) such as Colonels Fenton, Mosse and Ward, and Lieutenant Thomas Hutton.

There was the inimitable Major RWG Hingston of the IMS, who as the medical officer to the 3rd Expedition to Everest returned

with an impressive and thus far exclusive collection of high altitude fauna and flora. Later, he went on to write a well received book on the subject.

An Extra-ordinary Mammalogist

Of all mammals in the world, there is just one which is named after an Indian. He was Lieutenant Colonel ASG Jayakar, IMS who discovered the Arabian Thar, in Muscat. The world of science named this Thar in his recognition as "Hemitragus Jayakari!" He went on to discover many marine forms ten of which also were named after him, a record not equalled by any one else in the World. Mistrustful of his brilliant intellect, the Government chose to keep him away from India in Oman for his entire service.

Flirting with the Snakes of India

Once again, the honour for the first collection and scientific evaluation of the snakes was grabbed by Jerdon who was recognised as "an extraordinarily versatile scientist who was equally at home in study of mammals, birds and reptiles".³ In 1853, Jerdon published the "Catalogue of Reptiles Inhabiting Southern India" but it was Colonel Frank Wall, also of the IMS, whose "A popular Treatise on the Common Snakes" illustrated with coloured plates and diagrams drawn by Wall became the definitive scientific text.

Befitting as it ought to have been in the land of snake charmers, the first popular text titled "The Snakes of India" was authored by Lieutenant Colonel K Gharpuray, IMS, in 1935. The book ran into several reprints and remained the standard text for the next 25 years.

Bird Photography

The pioneer was undoubtedly Lieutenant Colonel RSP Bates. His knowledge of bird biology was as acute as was the excellence of his bird photo-portraits. This accomplishment manifests in his books "Bird life in India" authored in 1930 and "Breeding Birds of Kashmir" published in 1952. The latter publication graces the shelves of the USI library, I am told. Dr Salim Ali paid him a handsome tribute when writing his obituary, "Many of his portraits of Indian birds must still rank amongst the finest ever made."

The Botanists

Though a vast field but it remains inadequately documented even today, and our knowledge is restricted chiefly to the medicinal

plants and flowering garden-plants. "India Medicinal Plants" in 2 volumes by Lieutenant Colonel K R Kirtekar remains the magnum-opus. But it was Colonel Sir R N Chopra's "Glossary of Indian Medicinal Plants" which serves as the basic guide to the manufactures of pharmaceutical drugs the world over, to this day.

It is often stated that but for the seeds of the Himalayan flowering plants gathered by Lieutenant Colonel F M Bailey and Colonel A E Ward and the trubers of orchids by Major General Sir Arthur Cotton, the flower-beds in English homes would have had fewer colour blooms ! The Blue Himalayan Poppy (*Mecnopsis Baileyia*) is named after Captain FM Bailey who dicovered it during an armed skirmish in 1904 short of Lahsa.⁴ Captain Bailey also gained international fame for procuring seven indigenous dogs from Lahsa in 1904 which became the most famous breed known to dog lovers as Lahsa Apssos.

Sporting Fishes

Jerdon was, obviously, obsessed with the entire spectrum of nature. As in other disciplines, his was the first scientific paper on the fresh water fishes of South India. But the three books that followed were written with greater focus on "Sport" and less on biology: "Sunlit-Waters" by Captain CWW Conway, "Circumventing the Mahseer and other Sporting Fish In India and Burma" by Lieutenant Colonel Arthur Mcdonald and "The Complete India Angler" by Colonel John Masters. Conway and Master's books are embellished with exquisite water colours, making them collector items.⁵

Flitting with the Butterflies of India

In a period of 40 years between 1836 to 1876 were born five men, Swinhoe (Colonel) Yerbury (Lieutenant Colonel) Bingham (Colonel) Tytler (Major General) and Evans (Brigadier), all commissioned to the Indian Army and between them they explored and mapped out the entire Lepidoptera of India. For instance, Swinhoe's collection of moths had 40,000 specimens comprising 7,000 different species. And of the latter, 400 species were described for the first time by Swinhoe.

Colonel Bingham, who went on to retire as Chief Conservator of Forests, Burma also had a vast collection which formed the

basis of the fauna of British India volumes dealing with butterflies. Major General Sir H C (Harry) Tytler also had a vast collection many of which "till then were hardly known." Colonels Bailey and Sir Francis Younghusband had the most exclusive collection of the high altitude butterflies.

But undoubtedly, the first among equals was Brigadier Evans. Son of General Sir Horace Evans, Commandant of 8th Gurkha Regiment at Shillong, born probably to a Lushai mother, commissioned from Sandhurst, won DSO in World War I and took premature retirement in 1947 when Chief Engineer at Headquarters Western Command. In his lifetime, he attained international acclaim as the authority on butterflies of both India and the world. He authored the first book "Butterflies of India"⁶ and on butterflies of Europe, the Americas and Australia.

Conserving India's Forests and Wildlife

In the closing decades of the 19th Century, the large body of Army's sportsman-naturalists (*Shikaris*) were disturbed that wildlife of India and its forests were dwindling at an alarming rate. The first to sound the alarm was Colonel L L Fenton (a gunner turned Grenadier and then into political service) when around 1895 as Political Assistant in Kathiawar he realised that last surviving pride of the Asiatic lions of the World then numbered less than 50 animals were confined mostly to the Gir Forests.

But the "father"⁷ of what in today's popular idiom is called the "Nature Conservation Movement" was Lieutenant Colonel R Burton. His basic thrust was that wildlife and forests are a national asset which must be preserved for posterity. And it is the duty of the State to do so. Burton persevered with a rare single-minded dedication to his life's mission till in 1952, Mr Nehru announced the creation of the India Board for Wildlife. Burton wanted to make it a peoples movement led by Mahatma Gandhi but destiny willed it otherwise. This tragedy can truly be attributed to destiny alone as otherwise India's wildlife and forests may well have received the status of national heritage.

Conclusion

At the end of the day, it will suffice to remember that each one of this impassioned band of Indian Army Officer-Naturalists gained entry to what John Keay termed as the most exclusive fraternity

of "Giants of Scholarship". They created for the Indian Army a scholarly heritage parallel to the heritage of valour which too, is a fact of history and for us to cherish with equal pride.

Notes

1. *"Field Sport in India, 1800-1947"* by Major General J G Elliotte 1973.
2. *"A Concise History of Ornithology"* by Michael Walters, 2003.
3. J C Daniel, the curator and Director of the Bombay Natural History Society (BNHS) Mumbai.
4. *"Dual on the Snows"* by Charles Allen, 2005. Also *"Bayonets to Lahsa"* by Peter Fleming, 1962.
5. All titles available in our personal library, gifted to us by an inveterate angler, E P Fox, an Irishman who lived and died Fishing at Banderdhara, near Igatpuri, Maharashtra.
6. Available with the BNHS library.
7. A tribute paid to him by the late Dr Salim Ali writing his obituary notice in the BNHS Journal.
8. Bulk of the factual details of this retrospective have been pieced together from articles and obituary notes written in the BNHS Journals since 1890 onwards.

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