



CHEETAL

JOURNAL OF

The Wild Life Preservation Society of India

Vol. 14

SEPTEMBER, 1971

No. 2

—Photo by S.P. Shahi



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Some Conclusions on Wildlife Problems

BY

RICHARD WALLER

(1) "Wildlife" should be separated from the Forest Service and taken out of the hands of the individual States. It should become a 'Union' instead of a 'State' subject and a Wildlife Department at the centre should be set up to administer a *Wildlife Service*. This would hopefully give some uniformity to the many different wildlife regulations governing different sanctuaries; it would also enable promotion to be given from one wildlife post to another, thus avoiding the necessity of returning a wildlife-orientated forest officer to a purely forestry job in order to secure him a salary up-grade.

It may not be possible to create this service at once, but a start could be made with a 'Wildlife Wing' of the Forest Service under the Inspector General of Forests, aided by a high ranking forest officer with wildlife management training. Into this special 'wing' will be fed the men coming out of the recently started Wildlife Management Course at Dehra Dun. Mr. R.C. Soni, I.G. Forests, had this in mind when I had several talks with him in Delhi in August, 1970.

An eventual separation of 'Wildlife' from 'Forests' would make it easier to deal with the continuing forestry operations which cause much animal disturbance in many sanctuaries. These operations are continued because the "State Forestry Department cannot do without the income", as quoted many times throughout India. The States concerned would initially have to receive some compensation from Delhi, but with a Wildlife Service working closely with the Ministry of Tourism the increase of revenue from more tourists viewing better managed sanctuaries could soon balance this; further profits could be shared between the Centre and the States.

(2) Overgrazing by domestic livestock is a major problem all over India. As geometric progression of the human population explosion continues (the present rate of increase is 1.2 million people a year) the number of cattle are bound to expand. This is a deep-seated socio-religious problem to which no ready solution is apparent. The forests of India must be protected if her economy is to be maintained; her forest area is already far below the necessary level recognised by economists. Nearly all India's wildlife is found in the forests and the destruction of the latter, whether by overgrazing and consequent soil erosion or by clear felling for cultivation, will destroy the former.

Let the forests at least remain inviolate within the very small area which constitutes the wildlife sanctuaries and let every effort be made to lessen the grazing of domestic livestock

within the sanctuaries. It would be unrealistic to imagine that all cattle can be turned out of the sanctuaries, but the problem of overgrazing and its consequences must be fully realised, which is not the case everywhere. For instance it is not sufficiently appreciated that the elimination of the best grasses, not at first always taken seriously, is the beginning of the decline in the ecological composition which will surely lead to a loss of soil structure in a barren dusty waste from which top soil can disappear overnight and take many generations to replace.

Cattle diseases such as rinderpest, anthrax and foot-and-mouth, are yet another danger to the wild ungulates if domestic stock is allowed to roam throughout a sanctuary in large numbers. The principle of leaving a 'sanctum sanctorum' free of any domestic grazers and forestry operations is a sound idea. It is practised by some sanctuaries and should be by more.

Good quality breeds of sheep such as the merinos of Dachigam, which are an economic proposition for the State concerned, will probably have to be accepted as a part of a sanctuary. In the case of Kashmir it is quite possible that hangul (Kashmir Red-deer) and sheep can live together as deer and sheep do in other parts of the world. But Kashmir is an exception with its alpine pastures and temperate climate.

The fact remains that overgrazing by domestic livestock is causing destruction of nearly every environment throughout India. Without any doubt the cow is the greatest scourge of India and her foremost problem. Sadly the cow too often becomes an issue in State politics, where politicians who have their own and not the nation's future at heart, make political capital out of it. "The people will starve if they are not allowed their ancient grazing rights" is a tempting and vote-catching cry.

(3) *Poaching* is still a major problem in many sanctuaries despite recent tightening of controls. The poacher must be clearly separated from the hunter. The latter shoots for food, sport or prestige, the former shoots for money and, as many people in the world will do most things for money, he is a formidable opponent. The hunter however cannot be exonerated from blame for the present wildlife situation. Before the Second World War the wildlife in the forests of India was, rightly or wrongly, looked upon as the preserve of the rulers—the Princes and the British. After 1947 with freedom from foreign rule, wildlife was considered the property of the people and all who could went into the forests to kill everything that moved.

Protection, above all, is what is needed and there is little time to spare. Even now in 1970 it must be faced that there is hardly any wildlife, except birds and some small mammals, left in India outside the sanctuaries; by 1975 there will probably be none at all, other than birds, beyond the borders of the parks and sanctuaries. Whether there will be any left inside some of them depends entirely on *protection* of the animals as well as their habitat. The Wildlife Service, if it comes into being, should have a system of rewards to guards who

apprehend poachers. If at all possible, the salaries of forest or wildlife guards should be increased to lessen the temptation of bribes from poachers. When money is the aim, especially large sums, poachers can be dangerous and desperate if bribes are ineffective. Forest Guards should all be armed and with proper authorisation to use the arms. The fines and punishments for poaching should be brought into line with the offence and, if possible, unified throughout India.

(4) *National Parks* should be created, not just in name but in fact, if anything is to remain of India's wildlife. It makes a mockery of the accepted principle of a National Park if cultivation, grazing and forestry continue unchecked even after legal status has been given.

(5) *Crop protection guns*, bought under licence, should by law have sawn-off barrels.

(6) *Binoculars* should be made available to the chief wildlife officer of every park or sanctuary. Four or five pairs would be sufficient to enable guards on anti-poaching patrols or wildlife management duties to be issued with them for that particular operation. Good Japanese binoculars can be bought for about £10 sterling a pair. Some sanctuaries have only one, probably private. Others, like Corbett, have two issued by the Government. For a modest sum W.W.F. *could make a considerable impact by presenting two or three pairs to the sanctuaries where the need is greatest.

(7) *Tourist Facilities* fall far short of what is needed in many parks and sanctuaries. The Minister of Tourism in the Govt. of India is well aware of this and his plans for development in five major parks and sanctuaries has just started. India's tourist facilities are far behind many other countries, especially in wildlife localities, and foreign aid is much needed. Better tourist facilities at home and advertising abroad will attract more foreigners and foreign exchange, which in its turn will enable better salaries to be paid to wildlife personnel and protection for wildlife can be increased. The present vicious circle of no money for better tourist facilities, disillusioned tourists and less money earned by a sanctuary, must be broken and converted into satisfied foreign tourists spreading the word abroad, more tourists and money and hence better protected and organised sanctuaries and more animals to see.

(8) *Foreign aid* in the form of expertise and money is badly needed and was everywhere expressed strongly to me. This need is equally recognised in the Govt. of India at Delhi. I was in the position to initiate some of the help requested, having been specifically asked by F.A.O. of U.N.O. to look into certain projects in which India had expressed the need for international help and for which F.A.O. was willing and ready to help. Certain formalities are inevitable when aid is requested by a Govt. These were made as simple as possible and explained in conversation, but still nothing emerged as the bureaucratic wheels turned slowly. This is indeed sad when the desire to help and be helped is expressed on either side.

* World Wildlife Fund .

(9) *The Wildlife Management Course*, started at Dehra Dun in April 1970, is a case in point. I went to the Forest Research Institute at Dehra Dun at the request of the Inspector General of Forests and of F.A.O. I discussed the course and the help needed and relayed it to the necessary quarters. It is hoped that the necessary 'request' will come from Delhi in time for F.A.O. to help with the second course which starts in January 1971.

A Wildlife Management Course was strongly recommended by the I.U.C.N. Conference in Delhi in November 1969. The Indian Government is certainly to be congratulated on starting such a course comparatively quickly; it is hoped that it might expand into an international centre for training personnel from all over S.E. Asia in wildlife management techniques.

(10) *Education* of a technical nature, as mentioned above, is most necessary, but perhaps the greatest long term project for conserving the wildlife of India will be education in general 'natural history' in her schools from the youngest age groups upwards. In particular there needs to be a connection made between the theoretical and the practical. Too often biology and botany students have learnt all they know out of a book; they have never been in the field and even the idea of field studies is totally foreign to many of them. Talks illustrated with slides (the Bombay Natural History Society has small packets of excellent slides to loan) and films on animals and birds of their own country can stimulate an interest which, at the moment, is only rarely found amongst the young. The Wild Life Preservation Society of India, based at Dehra Dun, is making brave attempts on these lines and deserves all encouragement. The Education Dept. of the Govt. of Assam is to be congratulated on its small books on animals and birds for use in its schools; as is Dr. Robin Banerjee on his splendid lectures and films in schools.

(11) *Education of the general public*, most of whom cannot afford the time or money to visit a wildlife sanctuary, can be helped by small deer parks which are being established in several of the Indian States. These are a cross between an open zoo and a full-sized sanctuary, often of a hundred acres more or less, sited as near as possible to a large town or industrial district. One of these has been started privately by the managing director of a big coal mining company in the Damodar river valley near Asansol in West Bengal. Here the miners can bring their families to see, in a natural setting: sambar, cheetal, barking deer, blackbuck and peacock. This helps them to sense the beauty of these animals and not just think of them as things to be killed and eaten.

Delhi, Hyderabad, Mysore and Calcutta, to name a few, have good zoos—the first two excellent—but in such a vast country, the majority of people have no chance of seeing any wildlife, except in a zoo. Even the small Borivli Park, so convenient to Bombay, is beyond the reach or interest of many who live in the city. Small deer parks or enclosures, as well as acting as a breeding establishment, can for some people bridge the gap between those few

who still live in the forests near to the wild animals and the equally few more affluent people who possess cars and can visit sanctuaries.

(12) There is a great lack of even the most basic *ornithological knowledge* by the staff of most of India's sanctuaries and parks. In spite of having one of the world's leading ornithologists, Dr. Salim Ali, the average educated Indian has little or no interest in the bird life of his country even though it is in rich evidence everywhere; in a small garden in the middle of Delhi I recorded 45 different species. The foreign tourist however, who visits the wildlife sanctuaries, probably knows little of the birds of India but is fairly well acquainted with those of his or her home country and therefore has an eye for a bird and wishes to learn. These foreign tourists have often expressed to me, and to others I know, that they were most disappointed to find that in such and such a sanctuary they could only rarely find anyone to tell them the names of the common birds around the Tourist Rest House; and no one to help them with the many beautiful birds seen in the forest.

I tried to stimulate interest amongst the staff of the various sanctuaries by drawing up a list of the common and less common birds in their particular sanctuary, subdividing them where necessary into those of different habitats and cool and hot weather seasons. I explained that my lists of about 60 or 70 species should be considered as only the beginning of an eventual "Check-List of the Birds of...Sanctuary", and that visiting ornithologists could add to, and perhaps correct, my original list which should be displayed in a prominent place in the dining hall or lounge. Wherever I left such bird lists, in about half the sanctuaries visited, I sent afterwards as a presentation Salim Ali's two basic books of Indian Birds and Indian Hill Birds. In several cases I got an interest going amongst the staff or stimulated one that was already there.

(13) There is an urgent need for the teaching of *census techniques*. So far less than half of the twelve major sanctuaries or parks have carried out even a partial census. Of the few, such as Kaziranga, Kanha, Bharatpur and Palamau, some have done it on the strip method, others on the block method, according to the nature of the habitat. These censuses however are rarely carried out each year, so no definite conclusions can be drawn on population trends or population dynamics. Furthermore there has been no appraisal of the carrying capacity of certain sanctuaries or of particular habitats within those sanctuaries in relation to certain species. For instance elephants are probably getting too numerous for the area available to them in Bandipur and Mudumalai; cheetal certainly need cropping in several sanctuaries but more should be known of their numbers and movements before this is started. Wild dog are destructive vermin in some areas and must be shot.

No sanctuary or park in India has a properly set out '*Management Plan*' to which the staff can refer when certain decisions affecting the sanctuary as a whole have to be taken. Too often the planning of some tourist facility improvement will be found to clash at the last moment with the management of the wildlife of the sanctuary. If there had been an overall plan to refer to, this could have been avoided.

Techniques for taking censuses and drawing up management plans are being taught on the Wildlife Management Course at Dehra Dun, but until sufficient personnel have passed through that course it would be highly advisable if a foreign advisor well experienced in these techniques could work on them and, at the same time, instruct the staff in certain sanctuaries.

(14) *Threats to India's wildlife sanctuaries from necessary economic expansion* must be viewed in a balanced way. It helps no one and can rightly annoy the Govt. of India if foreign ecologists descend from their affluent armchairs and theorise on what should or should not be done, with little understanding of the needs of the country as a whole. The population explosion is an ugly fact and the Govt. of India is bravely trying to combat it. In the meantime the economic needs of an overcrowded country with an expanding economy must be recognised. Dams must be built for irrigation and hydro-electricity and much needed minerals must be mined if discovered in economic quantity. Large sheets of water can give certain scenic compensations as may well be the case in Corbett; and after the disturbance of building and clearing has finished, a natural calm descends again and animals return as has been seen in some of the reservoirs in the Nilgiri Hills and further south in Periyar.

Mining is of course a continuous and noisy process and would necessitate the alteration or moving of a sanctuary. The encouraging fact, which I found in the Nilgiris and in Rajasthan, where threats to wildlife existed from economic expansion, was the honest attempts by the various officials concerned to arrive at a compromise which would be in the best interests of the nation as a whole.

This was also the case with the present Sheep Research Station in Dachigam. Sheep of good quality breeds earn much for the Govt. of Jammu and Kashmir; the hangul earns nothing at present and can never, even in the future, earn much foreign exchange, unlike a rhino or a tiger. Even so, genuine efforts are being made to move the sheep to summer pastures outside the sanctuary and to cause the minimum disturbance at present within Dachigam.

(15) **The I.U.C.N. Conference in Delhi** of November 1969 made a great impact on Indian thinking on wildlife. The effect of it has done much to stimulate greater interest and enthusiasm amongst the people already aware of the wildlife situation in their country, and has caused others to think about something they had previously taken for granted. What is vitally necessary now is a steady follow-up and constant contact from the West with all those responsible for wildlife at the Centre and in the Sanctuaries themselves, ready to help in any way required. Indian conservationists, few though they may be in such a vast nation, are doing a great work and moving quickly about it in bringing in protective measures. They deserve every encouragement and recognition from their colleagues in other countries.

The Govt. of India appointed an "Expert Committee on National Parks and Sanctuaries" to take a very hard and critical look at both the wildlife and tourist situations in parks and sanctuaries. It started its work within about two months of the Delhi conference. Sankhala was the Secretary and there were seven members. Their report was ready in August and the recommendations were strong. The Indian Board for Wild Life now has Dr. Karan Singh as its Chairman which assures that its progress will be energetic. There is plenty of other evidence of the effect of the I.U.C.N. conference in stimulating awareness of the dangers facing their wildlife and their forests, as well as an equivalent amount of work being put into confronting them. I stress again that this needs full recognition from other countries and the maintaining of personal contact and encouragement.

Editorial Note. In continuation of the above article, Mr. Richard Waller gives some notes on a few important wildlife species in India.

Lion (*Panthera leo persica*)

The latest estimate for the lions in the Gir Forest is 150. It was impossible in the five months I had available in India to cover this as well as the other major sanctuaries. The precarious situation of the lions of Gir has been written up in several recent reports; all I would add is that, as with the tiger, protection is the key note to their survival. This is sadly not what it should be when one hears of the local villagers, many of them harijans, driving the lions off their kills to get the meat and hides for themselves !

Great Indian One-Horned Rhinoceros (*Rhinoceros unicornis*)

This animal can be considered endangered in so far as its numbers are fairly small, about 560 in all, and concentrated in a limited area. Its recent history is nonetheless a triumph of wildlife conservation and efficient protection, especially in Kaziranga in Assam. Early moves were made in the days of the British in India when, in 1906, the wife of the Chief Commissioner of Assam was most disappointed at failing to see rhino in this area after a day's search on an elephant. Reading the records of the earliest Kaziranga Reserve, her failure is not surprising as the numbers of rhino were estimated at about 40 and some put them as low as 20. The British Tea Planters had slaughtered nearly the lot. Luckily for the world the Chief Commissioner's wife was a forceful lady and brought such pressure to bear on her husband that he ordered the formation of the Kaziranga Reserve in 1907 and, with a fine disregard for the tea planters of his day, made the first step in saving this species of rhino from extinction.

There were bad times after World War II, followed by the triumph of conservation under the partnership of P.D. Stracey and E.P. Gee. Further success has continued in the rehabilitation of the rhino since E.P. Gee (Wildlife of India 1964) estimated 440 for India (Assam 375 and West Bengal 65). The figure for India is now about 560 of which

Kaziranga has 400 and probably more, Manas 40 with about 40 in other small reserves; while West Bengal has 80, mainly in Jaldapara and a few in Gorumara.

In 1966 Spillett (Spillett B.N.H.S. 1966) estimated 580 for India. The drop in the total figure is due to heavy poaching for rhino horn in the small poorly protected reserves in Assam as well as outside these reserves, for which he estimated 70 and 40 respectively; of these rhino virtually none remain. On the other hand numbers in the sanctuaries have risen since 1966:—Jaldapara from 50 to 80, Manas 15 to 40 while the Kaziranga figure remains at 400 only because a census has not been done since 1966. I believe the present number to be slightly higher. From these figures we can see clearly the effect of good administration and protection and vice versa. There is absolutely no alternative when it comes to saving a species but the right men determined to do a good job.

The rhino figure for Nepal presents a sorry picture. Gee (Wildlife of India 1964) estimated 185, Spillett (B.N.H.S. 1966) estimated 100, but now it is doubtful if more than about 70 remain in the Nepalese Terai. I was not able myself to visit this area from Katmandu due to the heavy monsoon, but the U.N. Wildlife Management Adviser, John Blower, was in the Chitawan Rhino Sanctuary in May. 50,000 to 80,000 villagers live, cultivate and graze many thousands of cattle within the sanctuary whose rhino habitat has now been virtually destroyed, with the exception of the 150 acres around 'Tiger Tops' which has been leased to the company for 15 years by the Govt. of Nepal and which they protect carefully so that their many foreign clients may see rhino. It is sad to note that the present position is the reverse of what is written in the popular edition of 'The Red Book' (1969). Instead: "The numbers of rhino are steadily diminishing and the last vestiges of habitat are being inexorably destroyed by the thousands of cattle and buffalo which overrun the Chitawan 'Reserve' " a quote from John Blower's letter to me of September 26th, 1970.

In spite of the state of affairs in Nepal which, as with tiger protection, could be altered overnight with orders from the right quarter, the position of the rhino in the Indian sanctuaries is very heartening.

Wild Buffalo (*Bubalus bubalis*)

This species now numbers about 1,000, all of which are in Assam with the exception of a small and rapidly dwindling number in the Nepalese Terai. The situation in Assam is good but they are concentrated in two sanctuaries only and rinderpest from domestic cattle could decimate their numbers at any time. In the well protected and administered Kaziranga Sanctuary, shortly to be a National Park, there are 550 (census of 1966) and possibly more, as the reproductive rate is good. The other sanctuary in Assam, Manas, claims 400 to 500. I would estimate at the lower figure.

Up to five years ago there were herds reported from the southern part of Bastar along the Godavari river. I have no direct experience of these but understand that poaching has

virtually eliminated them. The situation in Nepal is as bad for this species as it is for tiger and rhino. The Tappu Sanctuary in S.E. Nepal near Biratnagar exists now in name only. There is no protection and it is estimated that perhaps 30 may remain.

Swamp Deer or Barasingha (*Cervus duvauceli branderi*)

The sub-species 'branderi' is in a precarious situation and found now in small numbers only in the Kanha National Park in Madhya Pradesh. As a result of the I.U.C.N. Conference in Delhi at the end of 1969 and with the aid of a generous gift of money, ten barasingha have been placed in a specially built enclosure in Kanha. Intensive study and observation will now be carried out for one year from July 1970, covering the free animals in the park as well as those in the enclosure. The census of June 1970 gave their number as 66.

Kashmir Stag or Hangul (*Cervus elaphus hanglu*)

From local estimates and conversations on them with wildlife and forestry personnel, I would put the over all figure at between 250 and 300, of which about 180 may remain in Dachigam.

Musk Deer (*Moschus moschiferus*)

Even an approximate estimate would be impossible to give for this species, living as it does in high and often inaccessible regions. Local conversations in Kashmir led me to believe that it is not as endangered as is sometimes thought.

Nilgiri Tahr (*Hemitragus hylocrius*)

This species exists in two main localities in South India, the Nilgiri Plateau in Tamil Nadu and near Munnar in the southern and highest part of the Anaimalai Hills, known as the High Range, in Kerala. There are also pockets of tahr on some of the high and inaccessible grasslands above the tropical rain forest stretching nearly to the southern tip of India at Cape Comorin.

The population on the Nilgiri Plateau is 400 or more, of which I had direct evidence of 195 within 4 days. It is hoped that a sanctuary or reserve will be created in this area of quite outstanding beauty. If such a reserve were to be controlled by the Forest Dept. and the Nilgiri Wildlife Association, with licences issued by the latter as at present, then there seems no reason why shooting of 'saddle-back' bucks should not continue. The Wildlife Association is run by people who know the area well and licences for shooting and fishing are most carefully controlled. It is a legitimate money-making way of cropping numbers.

The population on the Anaimalai plateau is at present in a healthy condition and well protected by the Tea Planters Association of the Kavandevan Company. It is however

threatened by the turbulent political situation in Kerala where political expediency by some is calling for the handing over of 'waste' land to the 'landless poor', irrespective of whether the land is fit for cultivation or not. I quote from a recent letter received from one of the tea planters, G.B. Shuttleworth : "a recent detailed survey disclosed 430 tahr in the Munnar area. They inhabit a high plateau region climatically unsuited to any form of cultivation with an average depth of soil extending to not more than six inches. Within six months of permitting encroachment in this area the settlers would leave, but by then there would be no more tahr. Only rigorous protection has succeeded in securing their presence here."

I found myself sitting next to the Governor of Kerala at a dinner party in Delhi in August; he showed knowledge of this area and keenness to protect the tahr but his constitutional powers are limited. If a Wildlife Dept. at the centre could be formed to take over all wildlife sanctuaries, such matters would be lifted out of the uncertainty of State politics.

Information on the pockets of tahr further south has been lost with my other documentation by an airline company. I can only state that a very rough estimate is a possible further 200 in areas of no protection. This might bring the overall figure of Nilgiri tahr to about 1,000.

Pigmy Hog (*Sus salvanius*)

I can substantiate nothing on this species, but some of the wildlife personnel of Manas Sanctuary have viewed it recently and they believe it is increasing. They estimate between 15 and 20. I have no information of its possible existence in other parts of the Terai and Duars.
