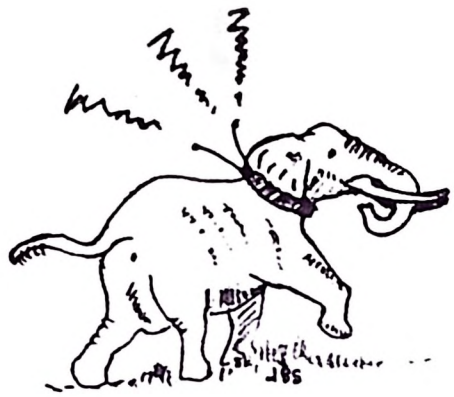
THE RAJAJI ELEPHANT PROJECT

The elephant habitat utilization project is one of a number of WII research projects aimed at providing ecological data on the Rajaji Sanctuary near to Dehra Dun, as a basis for its scientific management. The main objective is to examine the year-round pattern of habitat usage by the elephant population of Motichur and Rajaji Sanctuaries and adjacent forests - the western extremity of the elephant's range in India. These elephants, which were formerly part of the same population that occurs in Chilla Sanctuary, have had their former eastern migration route blocked by the Chilla power channel on the east bank of the Ganga and are now confined to the area west of the river. The research programme is investigating whether the reduced habitat available to these elephants adequately provides for their needs and the manner in which resources such as space, food, water and shade are used by the herds on a seasonal basis. Aspects such as disturbance by graziers and forestry operations, are also being evaluated. An understanding of the relative importance of all these factors should provide a firm basis for elephant management planning, especially in the context of the proposed Rajaji National Park.

A preliminary phase of the project was commenced in 1983 and worked out basic approaches for the study, such as the main seasonal foci of elephant occupance and the possiblities of using radio-tracking to follow the detailed movements of a few individuals. Procedure and drug dosages for immobilising elephants in order to fit them with radio-collars was refined and is the subject of the first scientific report from the project (Sale, J.B., Rishi, V., Singh, K.N. and Verma, V.K., Drug immobilisation of the Indian Elephant, J. Bombay Natural History Society In press). Radio collars had to be modified in order to prevent elephants from detaching the transmitter unit from the webbing collar, which they appeared to achieve by tugging at the aerial with their trunks.



The plastic block containing the radio is now attached to the collar with steel bolts and the free length of the aerial has been reduced. The two ends of the collar are firmly clamped together with two steel plates to prevent its removal by the elephant wearing it.

The main phase of the study commenced late in 1985 with myself, Dr. Sushant Chaudhury and Shri V.K. Verma, the local Wildlife Warden, as the main investigators. A Research Fellow is presently being recruited to spearhead field operations and WII and U.P. Forest Department are each to provide three Field Assistants for routine aspects of the work. The first of these, Shri Md. Yaseem, has been on the job for the past 6 months, faithfully collecting data from a radio-collared tusker, under trying field conditions. The animal remained in the blocks around the Dholkand area, in the company of the herd in which he was originally collared, from January to late March. After moving westwards to the Chillawali area with the herd, the tusker finally parted company with them in early April, since when he has been in the Mohund area, sometimes alone, sometimes in the company of another male. Detailed tracking of other tuskers will reveal the degree to which the changing seasonal patterns of this animal's habitat usage are typical. The probably different patterns of movement of cow-calf units will be studied, once some radio-collared females are "on the air". In the meantime, a good deal can be gleaned from careful observation of uncollared but identified herds and individuals, as they are encountered from time to time, while researchers traverse the forests.

Research of this kind is seldom without its tribulations. Many attempts to immobilise and collar a selected elephant fail - maybe due to inadequate immobilisation because of some kind of dart malfunctioning or perhaps for no better reason than the fact that the collar prepared turns out to be too small for the elephant's neck (no case of this so far on this project!). Problems which arose following an inadequate immobilisation in February have held up further collaring of elephants in Rajaji for the past several months. However, such hold-ups are not uncommon when new techniques in wildlife research are being introduced and one has to patiently try and convince colleagues that the positive benefits obtained from the technique outweigh the disadvantages. The benefits in this case are the wealth of continuous data on seasonal resource utilization by a number of radio-collared elephants - quantified detail on the ecology of Rajaji elephants that cannot be obtained in any other way and that will provide a firm understanding of their requirements on which improved management can be designed.

J.B. SALE

FROM LION COUNTRY

A stiff breeze tugged at our clothes as we ascended the hill which overlooks the jungles north of the Sasan village. We had a sweeping view of the lush green riverine vegetation, of the village and the surrounding agricultral settlements. Shrill alarm calls of chital rend the early morning silence adding to the excitement and heightening our expectations. Settling down on the rock slabs at the summit we began to scan with our binoculars. Along with me were Mr. Narve DCF (Sasan), Mr. Berkmuller (FAO/WII) and Abba Japfer (probably the most experienced and knowledgable tracker of lions).

From our vantage point I soon located a big wild boar rooting about in the open teak forest. The boar moved about quite unhurriedly and I began to scan other areas. To my great surprise, when I attempted to relocate the boar, an adult lioness came into view instead. She was apparantely stalking the boar and a little later I noticed that the lioness was accompanied by two more lionesses. The three of them spread out in formation, in a bid to make a meal of the boar. The boar probably smelt the lions as he took to flight before the lioness could get within charging distance.

The lionesses settled down for a short rest and then regrouped. That's when we saw the entire hunting party of five adult lionesses. On regrouping they greeted each other by rubbing faces and licking each other. Slowly the pride made it's way through the teak forest and disappeared behind a spur of rock, heading for the cool cover of the riverine vegetation, where they would lie up during the heat of the day.

I am on a Wildlife Institute project looking at predation and ranging patterns of lions under the guidance of Dr. A.J.T. Johnsingh and Dr. J.B. Sale. We are aiming to get data on prey and space requirements of lions; the ultimate management objective being to translocate some lions into suitable alternate habitats. Six lions will soon be radio-collared enabling me to locate them