



## POTATOES, PIGS AND RUBBLE WALLS

Crop damage by wildlife has always been a feature of the little Himalayan village of Moldhar, north of Mussoorie. However, because of the high value of its cash crops no-one really bothered, at least, not until the 1970's when the market for Moldhar's seed potatoes disappeared and wildlife damage increased. Today, freshly sprouted wheat is grazed by deer and just before the grain ripens in April the wheat fields are invaded by flocks of monkeys; while wild boar dig up the potatoes, often before they have even germinated. Many fields bordering the forest have been abandoned and, paradoxically, now provide excellent cover for wildlife during the major crop-raiding season of April and May.

In an attempt to control the menace, some families hire chowkidars to scare the animals away - a method which depends on the reliability of the people hired. Others take up abode in the fields themselves during the peak damage period; success in repelling the marauders depending on their ability to stay awake at night. Best control is achieved by building rubble walls along the front edge but

this may merely divert the problem to neighbour's crops. Yet other families rely on the gods or simply give up.

A well built wall would undoubtedly solve much of the problem, especially the serious damage caused by wild boars. It is reported that government provision (Rs. 50,000) for a rubble wall made 11 years ago was subsequently withdrawn and recent appeals for official help have not been effective. Why don't villagers build themselves a wall from material available on the spot? Perhaps because of prevailing social factors. Families who have built a wall already are not interested, while those with a lot of land are content to accept some degree of loss. The majority of families are simply unable to participate in a volunteer project because all their able-bodied members are working away from the village in order to earn some cash.

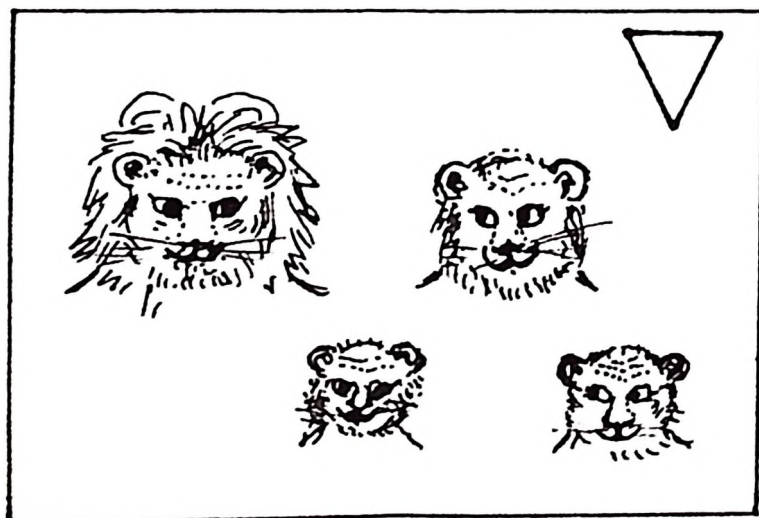
The study I am carrying out on Moldhar's problem raises the important question; "who is responsible for wildlife damage, and who is going to finance and implement measures to prevent it?"

What can WII do? Should we be interested in these problems? I think we should. Indications are that conflict between wildlife and man is increasing. Research could analyse various aspects of damage to crops, such as identification and quantification of depredation by different animal species, their relationships with habitat factors, control measures etc. Such studies involve a lot of field work and WII would realistically only be able to look into a few well-defined situations. However, research in this field is much needed and could ultimately lead to a more adequate structure for the control of wild animal damage in India.

B. SCHULTZ

### BIRTH CONTROL FOR INDIA'S CAPTIVE LIONS

A good number of Indian zoos and zoological parks are facing a problem of overpopulation of lions which has led to severe financial constraints. To combat this problem, several overseas organisations were approached and as a result Dr. Nan Schaffer, a veterinarian from Lincoln Park Zoo, USA visited India during March '85 and conducted vasectomy



operations on 4 male lions in Mysore Zoo. The latest technique in lion population control, however, is by hormonal transplant which inhibits ovulation.

Our Director, Shri H.S. Panwar on return from his recent visit to USA, brought back about 23 hormonal implants for use in lionesses in India. Within another couple of weeks these will be implanted in selected lionesses at Junagadh Zoo in Gujarat and Sanjay Gandhi National Park, Borivili, Bombay who have approached for technical assistance.

Contraceptive injections and implants have become increasingly popular as a means of regulating the reproductive activities of many large captive felids. Investigations by the University of Natal's Department of Zoology and Institute of Natural Resources in South Africa indicates that this technique can be applied successfully to the management of wild lion populations. The study was undertaken at Etosha National Park where lion numbers are abnormally high. To make the lions easily available, prey movements were artificially restricted by the erection of a boundary fence and creation of man-made water holes. There was also an increased incidence of anthrax in wild ungulates which increased prey availability. Lionesses in several prides were treated with either a single injection of progesterone acetate or a silicon rubber implant containing melengestrol acetate. This treatment inhibits ovulation and is effective for up to four years. All treated lionesses were monitored for after-effects and behavioural changes.

This technique has now become so refined that it is possible to reduce a population to a predetermined percentage. Hopefully success in our present venture with this technique, under the guidance of Shri H.S. Panwar and Dr. Ulysses Seal, will mark the beginning of a new era in the control of captive lion numbers in India.

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