

**DISTRIBUTION AND POPULATION OF HOG DEER IN DISTRICT
SANGHAR, SINDH**

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ABSTRACT: - The present study deals with the distribution and population of Hog Deer (*Axis porcinus*) in Sanghar District, Sindh. The studies were conducted during April, 1997 to December 1997. In addition to population status all the factors affecting the population and habitat of the species were monitored. As the animal is nocturnal and very shy, indirect methods were used for population estimates. Estimated population was 140-150. Hunting, habitat destruction and disturbance were major threats to the species.

KEY WORDS: Hog Deer Distribution ranges, Nara canal.

INTRODUCTION

Hog deer (*Axis porcinus*) is ranked among one of the threatened species of Pakistan. It has been exterminated from a number of its previous haunts and its population is on decline in its present distribution ranges.

Hog deer belongs to the order Artiodactyla and Family Cervidae. It is smallest of the Indian Rusa-like deer. It extends through Himalayan foothills zone of India through Assam to Myanmar and Thailand, but is quite local in distribution and not found elsewhere in Indian peninsula (Roberts, 1997). In Pakistan, Hog deer was once distributed throughout the riverine tracts of Sindh and Punjab but now it is facing danger of extinction. Very little and fragmented information is available regarding the status of the species in the country. Ahmed et al (1975) and Roberts (1997) provided information about its distribution. Scott (1989) referred to the occurrence of the animal in the adjacent areas of some major wetlands of Pakistan.

During the present studies detailed surveys were conducted to determine the distribution and abundance of Hog deer in adjacent areas of Nara Canal, District Sanghar, Sindh.

STUDY AREA

Nara Canal originates from Sukkur Barrage and passes from Khairpur Sanghar and Tharparkar Districts. There is a series of marshes, lakes and swamps with reed vegetation and scrub forest at margins along the canal which harbour a diversity of flora and fauna including the threatened species *i.e.* Hog deer, Marbled teal, Smooth-coated otter etc. The study area extends along the Nara canal from Head Jamrao down to Baqar Goth. Hog deer population is found in three fragments *i.e.* Chotiart reservoir, Pir Pagara Reserve and Awadhki forest. These areas are described below.

CHOTIARI RESERVOIR:

The Chotiari Reservoir in Sanghar district lies between lower Nara Canal, which forms western and southern margins and dunes area on fringes of Thar Desert, which forms the north eastern and eastern boundaries.

The reservoir has an approximate area of 25,000 acres. After remodeling, the flooded area will be 49,000 acres. Present water level has an elevation of 74 feet, which after remodeling will be 87.5 feet.

The area comprises of a series of open water bodies, fringed with extensive reed beds. A number of sand dunes occur in the area with elevation of up to 120 feet. In the areas adjacent to main reservoir, there are number of isolated dhands. To the east of the reservoir (here are sand dunes, with elevation upto 150 feet).

The site has different ecological zones *i.e.* deep water, shallow marshes, riverine forest, ephemeral channels, agriculture land and sand dunes* Aquatic area has submerged and marginal vegetation including *Hydrilla verticilleta*, *mttisnaria spirals*, *Nymphyaea lolus*, *Nelurmbium speciosorn*, *Phragmites Karka*, *Typha angustata*, and *Saccherum spp.* Sand dunes have typical desert vegetation such as *Calligonurn polignoides*, *Capparis decidua*, *Calotropis procera* and *Salvadora persica*.

Pir Pagara Reserve:

Pir Pagara reserve is 27 Km North West of Sanghar, 10 Km north east of Gujri along left bank of Nara canal in Deh Akanwari.

This reserve consists of area of Deh Akanwari in the surrounding of Goth Bilawal Abupota, Goth Alia Dino Bahin, Goth Ishaq Abupota, Goth Nawab Bahin, Goth Abdul Karim Rajpur etc.

A big area of the reserve has agriculture land whereas riverine forest is present along the Nara canal. The area having riverine forest is important for Hog deer population and extends from RD83 to RD 98 at Pir Pagara Bridge. It is an area of about 500 acres mostly consisting of reeds of *Typhea angustata*. There is also a dense forest in some area dominated partially by *Populus euphratica* and partially by *Dalbergia sisso*, *Ziziphus jujuba* and *Phyllanthus multififorms* which are common on the margins of embankments. In the adjacent sand dunes *Calligonum polignoides* and *Prosopis cineraria* are common.

Awadhki Forest:

Awadhki forest is situated 43 Km north of Sanghar close to village Awandhki. Plantation may be seen in Island surrounded by two branches of the Nara canal. It has an approximate area of 80 hectares. The forest consists of *Populus euphratica* with reed vegetation.

MATERIALS AND METHODS:

Information regarding occurrence and distribution of the Hog deer in the

study areas were obtained from local people. These information were confirmed through survey of the area by direct sighting of the animal and their signs including faecal pallets, foot prints etc.

Due to nocturnal and shy habits of the animal, its peculiar habitat and topography of the site, only tracks counting method was found to be most reliable method for population studies.

Track counts method for a number of wild species has been used. Estimation of number requires specific modeling of the relationship between animal numbers, spatial distribution and abundance of tracks. For direct counting of animals, night surveys were conducted by using search light.

During this study, samples were taken randomly. Fresh tracks of foot prints were counted and population of the total area of similar homogenous habitat was estimated.

RESULTS AND DISCUSSIONS:

The papulation of Hogdeer in chotiari reservoir was mainly concentrated in reed vegetation and scrub forest on both sides of Ajo Canal (Chandan Wan), in the adjacent areas of Siddiq Mullah Goth, Balu Jamali Goth and Ditta Jamali Goth. In the south, animals are found upto Goth Hasan Hingaro which is the southern margin of occurrence of the Hogdeer Chotiari reservoir. In the east, the species is restricted in the west of Suiiri Bhit. In the north, main concentration remains in the area between Chandan Wall and Mir Khan Manguana. However, animals are sparsely spread along the canal in the north east. Hogdeer population is also extended upto south west of Goth Piru Bahin. This is north-em margin of its distribution in the Chotiari reserve.

In Pir Pagara reserve, the animal population was found in riverine forest along Nara canal mainly between RD 83 to RD 98. Few Hog deer were found in Awadhki forest.

Estimated population of the Hogdeer in different areas in October, 1997.

<u>Name of the Area</u>	<u>Population</u>
Chotiari Reserve	80-95
Pir Pagara Reserve	50-55
Awadhki Forest	6-7.

According to Robert (1997) population of Hog deer in east Nara had been reduced due to control of flooding efforts and reduction of suitable habitat and only 20 to 30

individuals still survived in the swamps area of Sandori Lake. The present study reveals that the population in east Nara is not so drastically less, but dispersed in adjoining areas. However, it is not on Sandhori Lake but in other areas.

THREATS:

There are a number of factors which are affecting population of the animal in the area. These are as follows:

Hunting Pressure: In the area of Chotiari reservoir, there is a lot of hunting pressure. It was reported that 15-20 animals were hunted annually. During study period, hunting parties were seen in the area and 7 animals were reported to be hunted by them.

Hunting pressure in the areas of Pir Pagara reserve and Awadhki forest is relatively less.

Habitat Degradation: In Chotiari reservoir, habitat of the animal has been badly degraded due to activities of remodeling of the reservoir. Riverine Forest has been cleared from area for getting clay for construction of the Bund.

Disturbance: There is high disturbance caused by machinery used for remodeling of the canal and reservoir. In addition agriculture activities and livestock grazing also cause disturbance.

Pesticides: Cotton is sown in the field adjacent to the forest having hog deer population in it. Pesticides are regularly used on this crop which may be harmful to the animals.

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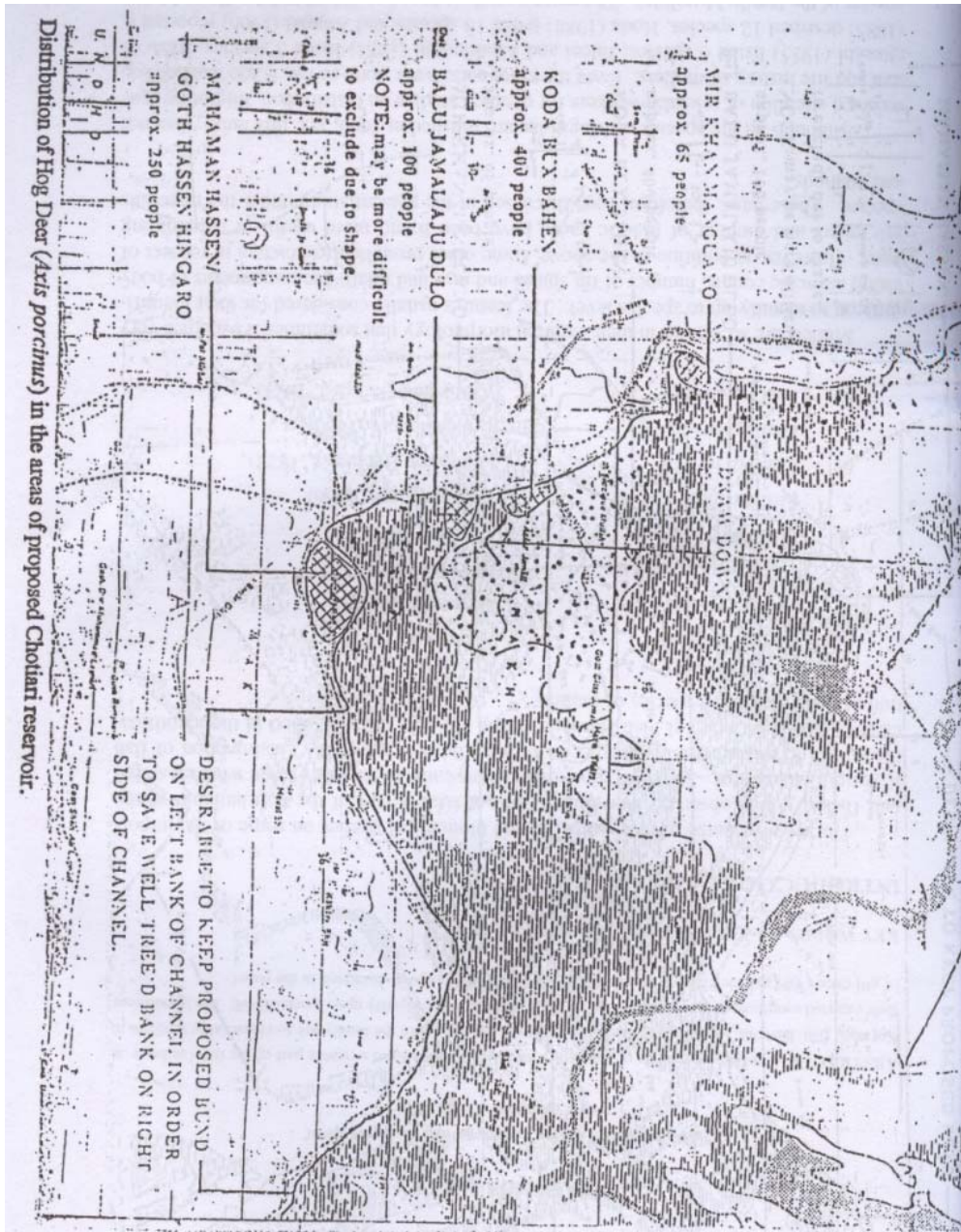


Fig. Distribution of Hog Deer (*Axis porcinus*) in the area of proposed Chotiari reservoir

