

## General methods of observation

### I. Introduction :-

Observation and experiment are the two primary methods for studying behaviour. The observer accumulates data on basic facts and these are tested by experiments. Thus their combined efforts may result in more accurate facts and theories ( Scott , 1958 a ). One of the most important things in studying behaviour is probably to record data systematically and accurately. The primary means of studying animal behaviour in natural settings is to wait with patience at suitable spots where animals are most likely to be observed without disturbing them. With a view to record behaviour systematically two basic techniques viz. ' instantaneous sampling ' ( Altmann , 1974 ) and ' continuous sampling ' over some unit time were used. The details of these methods , the study period , mode of observation and the equipment used are described below.

### II. Study Site :-

Observations were conducted mainly in three different types of habitats, viz. rural , Belakoba village ; semi-urban , Jalpaiguri town and urban , Siliguri town. The first two are in Jalpaiguri district while the other is in the adjacent Darjeeling district , in the northern part of the state West Bengal. Sampling for population study was conducted throughout the district of Jalpaiguri in all 13 block areas . Besides some reported data

collected from different parts of upper and lower Bengal were also considered.

III. Study period :-  
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Observations were conducted from July 1986 to December 1990 . Except short breaks of 3 - 5 days every month for library consultation , consultation with the supervisor at the Department and collection of various records from different public and private offices the author mostly engaged himself in the study over the whole period of study.

IV. Daily observation schedule :-  
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For convenience of study daily observations ( routine ) were divided into three shifts i. e. in the morning ( 6.00 a.m. to 9.00 a. m. ) , in the noon ( 12.00 p.m. to 2.00 p.m. ) and in the afternoon ( 4.00 to 6.00 ) . In some cases observations were taken from 6.00 a.m. to 12.00 p.m. and from 2.00 p.m. to 6.00 p.m. In actual practice , however , the hours as scheduled above could not be followed exactly. But the deviations from the schedule observation hours were never more than 30 minutes. Thus observations were made throughout the day encompassing all the three shifts. Besides , observations were also made at any hour of the day whenever feasible.

V. Mode of observation :-

Observations were mostly performed on foot and sometimes on bicycle . Distance maintained between the subject and the observer varied from 10 to 20 metres. In most cases slow walking was convenient as stray dogs moved in irregular manner. Sometimes they moved along the streets or roads , sometimes along agricultural fields , sometimes through crowded streets and so on .

When dogs moved in mating association or at the time of their foraging , bi-cycles were convenient as their movements at those periods were rather fast to follow them on foot.

VI. Equipment used :-

Observations were made with the naked eyes as well as with the help of binoculars ( 7 , X 35 , XENITH ). Sometimes observations were recorded in a portable tape - recorder ( Philips ) because field works could not be taken as fast as behaviour patterns came about. Photographs were taken by a National - 35 ( 1 : 2.8 lens ) camera . A stop watch ( Rocar , Swiss made ) was used to record time. A cloth tape was also used to record distance.

VII. Methods in recording behaviour :-

Observational data were noted in tally sheets prepared separately for different behavioural patterns. Quantitative data were recorded in note books in the field. Different behavioural expressions were also recorded in the note books whenever possible. For measuring distance assistance of local people were needed. A combination of all these was used in collecting behavioural data as demanded by specific situations.