

Food and food habit

I. Introduction :-

Distribution of a species is often related with abundance of food. Study of food items and food habits of a species is important in the sense that often it determines distribution, abundance, density and survival of the species concerned. It also reflects the carrying capacity of the habitat. Studies of this type are essential in framing conservation as well as control measures to curbe the population of animals associated with human being such as stray dogs which in our country usually assume pest statusque.

Feeding behaviour involves food composition, food preference, amount of intake per day and various motor patterns associated with food intake. Nature of diet is always in harmony with the digestive apparatus of the species such as teeth, gastrointestinal tract and enzymatic capabilities.

In the present study an attempt is made to study food habits of dogs in a rural environment. As the stray dogs remain associated with human beings their food habits and food preferences are totally different from that of the wild dogs. This chapter deals with food composition, food preference, total food intake per unit time by adult dogs and other associated behaviour patterns.

II. Methods :-

Observations were conducted on 50 adult dogs during day time from 5 a.m. to 5 p.m. continuously during the year 1988. The dogs were seen to consume waste or residual food matters thrown out from households , hotels and butchers' shop. Materials thrown out were weighed by arrangement with specific households and shops prior to their disposal. It was observed that dogs often consumed the total amount of food matters thrown out , although in a few instances they were found to leave some amount unconsumed. The amount of food available and the amount left and the nature and the kind of food were recorded.

Preference value was determined by dividing the percent of a particular item consumed by percent of that item available in the diet. The duration and frequency of food intake per unit time was recorded immediately after observations were made. Sometimes dogs were seen to consume human faeces. It was not possible to take weight of these . But frequency of its consumption was also recorded. They consumed dead bodies of goats and on occasions wasted considerable time in their attempts to consume large bones which , however , were mostly left undamaged.

III. Food items :-

In the rural study site careful observations were taken on the kinds of food the stray dogs consumed. Usually rice , bread , cooked vegetables , bones of cooked food like fish,

V. Total food intake :-

It was observed that dogs consumed different types of food several times each day. Amount of food taken each time during the course of the day was added up to obtain the total amount consumed . The average amount of food intake per dog was determined by dividing the sum total of all the above values with the total number of dogs studied. The average food intake per feeding bout was obtained by dividing the total intake by number of bouts.

VI. Result and discussion :-

Mode of feeding of adult dogs is , in general , similar to that other canids. They took rice , vegetables and freshly cut small pieces of entrails by lowering their heads with the help of tongue and swallowed them without much perceptible chewing. In the process they repeatedly licked their upper lip on both sides . In case of larger pieces of bread and particularly meat and bones they grasped the item in the jaws and then placed the pieces between the canine and the carnassial teeth with the help of tongue and repeatedly chewed them until the pieces were cut into smaller ones in order to facilitate swallowing . Dogs were observed to feed on carcasses of goats , cows or other bovines whenever these were available . They tore the muscles with the canines when their heads were held downwardly and

laterally and their canines were exposed as the upper lips were vertically contracted . While consuming human faeces they appeared to lick the faecal matter into the mouth.

Table - 7 shows average amount of food consumed by the stray dogs (N = 50) . The result shows that dogs consumed greater amount of cooked food than that of flesh and entrails. Availability of cooked food was higher as these were regularly thrown out by the house owners and hotels. Flesh , bones or entrails were not regularly available in the village. These were thrown out from the butchers' shop in village market at particular times. For this reason average number of feeds per day per dog was higher in case of cooked food than flesh and entrails which are available only periodically. It is evident that a dog consumed higher amount of cooked food in each feed.

It is seen that the 50 experimental dogs daily consumed on an average about 17.850 Kgs. of cooked food during the day along with 13.300 gms. of flesh and entrails of goat in a single day. Thus it shows that they act as cleaners by regularly consuming those and prevent the local atmosphere from being polluted by the foul smell . Again it can be said that an average of 17.850 Kgs. of cooked food was wasted daily by human beings in the rural study site.

Most animals show some degree of preference towards a particular type of food available to them. The preference value (P) of mainly two types of food items are shown in table - 8 .

Foods with preference value greater than one ($P > 1$) is regarded as preferred food, 'P' less than one ($P < 1$) indicates neglected food, 'P' equal to one ($P = 1$) shows neither preference nor neglect and zero value of 'P' ($P = 0$) shows neither avoidance of that item. The result in table - shows that although dogs used to consume both cooked food and entrails of goat, but their preference was a little higher for flesh and entrails of goat.

According to Ozon, Dolisi, Ardisson and Crenesse (1983) in dogs spontaneous organization of activity patterns are linked to eating behaviour. In the present study in the village spontaneous locomotor activity in search of food was regularly observed within and outside their home ranges and supports the observation of Ozon et al.

Table - 7 Average wt. of day time consumption per day, average number of feeds per day per dog and average wt. (gms.) of food consumed per feed by the stray dogs in the rural study site.

	Cooked food (Rice + Vegetable + Fish bones etc.)	Freshly cut flesh and entrails of goat
Average wt. in gms./day (N=50)	357 gms./day/dog	266 gms./day/dog
Average no. of feeds per day per dog. (N=50)	3.94	1.04
Average wt. of food con- sumed/day/dog	121.42 gms.	255.77 gms.

Table - 8 Shows food preference ratings of adult stray dogs in the rural study site.

Food matters	Average wt. (gms.) of food matters			Percentage available (a) and consumed (c)		Preference value
	Amount available (gms.) (A)	Amount left (gms.) (L)	Amount consumed (gms.) (C)	$a = \frac{A \times 100}{A}$	$c = \frac{A \times 100}{C}$	
cooked food	525	168	357	60.5	84.2	1.2
Flesh and entrails	342	76	266	39.4	54.8	1.3

Plate - 1 . A dog is eating unconsummed rice
thrown away in a village market.

Plate - 2 . A male dog is eating the entrails
of a goat thrown away at the backside
of a butcher's shop in a village market.



Plate- 1



Plate- 2

Plate - 3 . A dog is eating entrails , flesh
of goat in presence of another older
subordinate dog.

Plate - 4 . A dog is eating a bone of goat in a village
market while a larger dog comes close to it.



Plate- 3



Plate- 4

Plate - 5 . The dog eating the goat bone , then snarls at
the larger dog as the later became more interested
to its activity.

Plate - 6 . A dog is licking blood of goat in a village
market area.

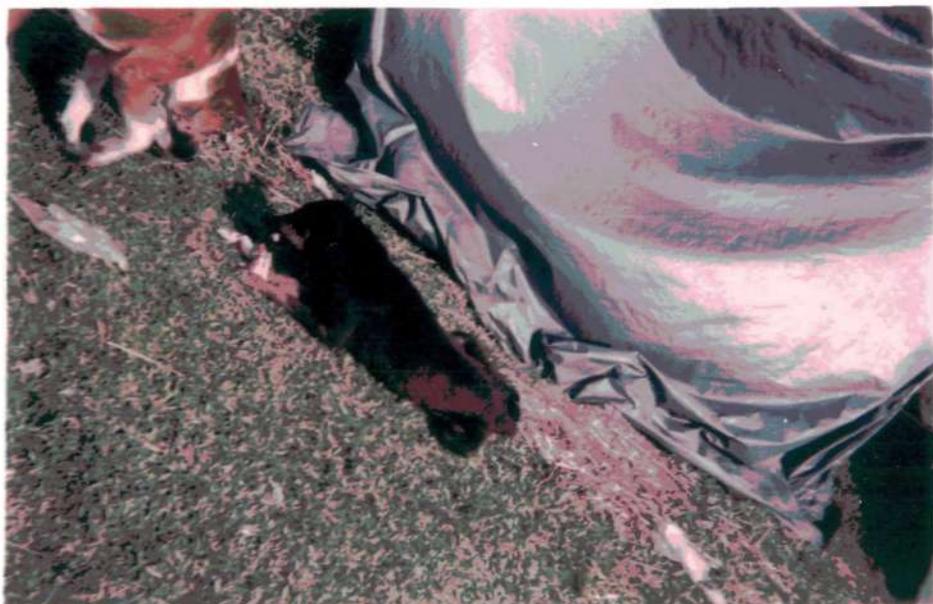


Plate- 5



Plate- 6