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Protective Devices in *Gazelle* Fawn in the Thar Desert of Rajasthan (India)

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ABSTRACT: The present paper is based on field observations; carried out in Barmer area of the Thar desert from Sept. 2010 to Nov. 2011, related to protecting devices, studied on eight gazelle fawns. *Gazelle* breeds round the year but birth peaks high in February- March and July-September. After a gestation period of 5 and ½ month, *gazelle* gives birth to generally single fawn, in between grasses and shrubs to hide it. The fawn's body remains odourless and in exposure area excellently camouflage with surroundings. It remains 2 to 3 days on the birth bed- site; during this period when disturbed, it extends its head and neck along with the ground or puts head on the ground, remains motionless and eyes seems to be fearfully. The hiding fawn becomes active each time, for feeding or hiding by mother's voice; as mother remains within 10 meters periphery from the fawn's site.

Key words: Indian gazelle, Thar desert, fawn, protective measures.

INTRODUCTION

The Indian gazelle, *Gazella bennettii* (Sykes, 1831) occurs in the Thar desert of Rajasthan, Gujarat (India) and Sindh (Pakistan) (Soni, 1983). Indian gazelle is a medium sized antelope found in open scrubs. In the western part of Rajasthan, Indian gazelle is commonly known as "Chinkara" due to its alarming voice "Chink-Chink". Gazelle lives in small herds of 3-10 animals and comprised of two types of herds - all male group and bisexual herd. Rahmani (1988) reported that after a gestation period of five and half month, pregnant female gives birth to a single fawn, however occasionally to even twins. Chinkara have no particular breeding season but more births were usually noted after monsoon. Dookia (2002) observed that at the end of the gestation period the pregnant females went away from their own herds. Before parturition the females selected a best place for hiding their fawns in some thick vegetation. The fawn was found walking slowly in and around the birth place only in the presence of mother. The mother gazelles were always watchful and responded to every call (even very low grunts) made by the fawn. According to Kankane (2000) Fawns characteristically lie in exposed places with head and neck extended along the ground, making no attempt to get up and escape when approached. The young does not follow mother until they are two to three days old. According to Gehlot (2006) the mother remains in close vicinity and watchful. As someone reach near to fawn the female moves away from fawn and from a distance she looks back, raises voice chink- chink- chink and keep watchful eyes towards bedding site of fawn. Jakher and Chaudhary (2011) observed that mother gazelle remains very attentive and within 10 meters periphery from the fawn's site. The hiding fawn becomes active/alert each time by mother's voice for feeding or at the time of danger. Mother gazelle does not feed the fawn whenever it finds any kind of danger. When it finds any predator/unusual person nearby, mother runs far away from the fawn's-site, probably for diverting the vision of the predator/unusual person, to save the fawn. Nature has given some protection devices to each animal; the main aim of this paper is to show the protecting devices in gazelle fawn.

MATERIALS AND METHOD

The present study was carried out at Dharasar Ka Tala of Barmer district in Rajasthan; located in between 25º51'N to 71º41'E, from September 2010 to November 2011. The study site Dharasar Ka Tala is situated 50 Km far from Barmer and in North-East direction of district headquarter, situated on State highway No. 40. The study was conducted on eight fawns of *Indian gazelle* with their mothers (in reference to protecting devices in gazelle fawn) in natural conditions by using Focal Sampling Method of Altmann, 1974 (adjusted according to field conditions). The observations were taken direct and also by using a binocular (10 x 50 mm).

OBSERVATIONS AND RESULT

During field-work from September 2010 to November 2011, protecting devices of eight gazelle fawns were observed. In September2010 and August 2011, four newly born fawns were seen in between grasses (1-2 ft. high) like Baker (*Indigofera hochstetteri*), Bhurat (*Cenchrus biflorus*), Kanti (*Tribulus rajasthanensis)* and shrubs like Bui (*Aerva persica*) and Sinia (*Crotalaria burhia*) where they could not seen easily by anyone. The fawns were dark–brown coloured and one of them was not cleaned (licked) up by the mother till that time (Plate-1). In October 2010 and November2010, birth of three more fawns in exposure area were noticed where they excellently camouflage with surroundings (Plate-3). In April 2011, one young fawn was found to hide itself in Bui (*Aerva persica*) shrub in such a good manner that its presence was very difficult to notice (Plate-4). All the fawns were odourless and by any kind of disturbance, two fawns kept its head and neck extended along the ground (Plate-2) but two fawns kept their head on the ground, remained motionless, eyes were fearfully. All the fawns were found on birth bed-site for 2 to 3 days. They were walking near birth place only in the presence of mother but in absence of mother they were in safer place of the bed-site and watching the mother and others. It was found that the fawns were becoming active/alert each time by mother's voice- low softly grunting, then for feeding and alarming voice "chink" loud and from a far, then for hiding and for remaining inactive. During this period the mother gazelles were giving less time for foraging because they were found very attentive and within 10 meters periphery from the fawn's site in each observation. They responded to every call (even very low grunt voice) made by the fawns. It was also seen that mothers did not feed the fawns as and when they found any kind of danger nearby. When there was any predator/unusual person, the mother ran far away from the fawn's-site probably for diverting the vision of the predator/unusual person to save the fawn.

Plate-1. *Gazelle* newly born fawn's body was found odourless.

Plate-2. When disturb, fawn extends its Head and neck along with the ground.

Plate-3. In exposure area, fawn excellently camouflage with surrounding.

Plate-4. Fawn hides itself in between thick vegetation covering.

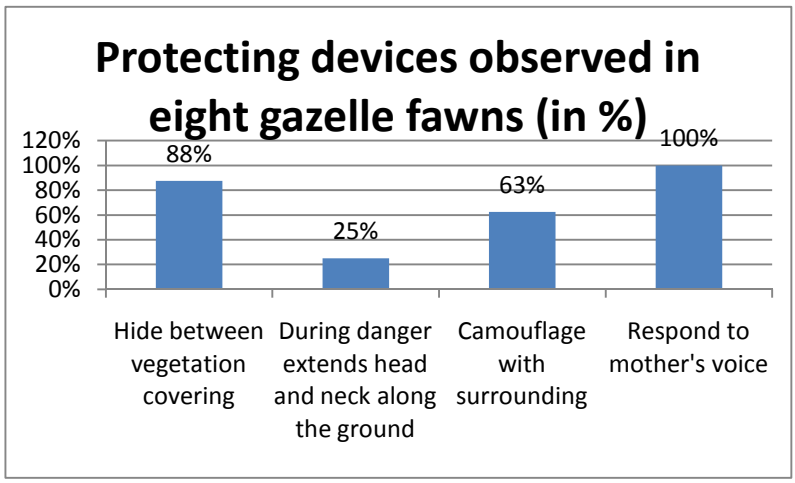

Fig. 1. Protecting devices in Gazelle fawn.

The Fig. 1 clearly shows that out of eight gazelle fawns, seven fawns were found to remain in between vegetation cover for 2-3 days (till they were not found to able to follow their mother); out of eight, two fawns extends head and neck along the ground when feel disturbance; five fawns out of eight were seen to be excellently camouflaging with surroundings and all the eight fawns were observed to respond to their mother's voice for feeding and also during the time of danger.

DISCUSSION

In the study (on eight fawns with their mothers) relatively birth and survival rate of gazelle fawns are higher during monsoon (Rahmani, 1988) when protecting covering of grasses and shrubs are good in the area. Gazelle gives birth to fawn in between thick vegetation, fawns walk here and there only in the presence of mother. Mothers are always watchful (Gehlot, 2006) and respond to every call make by the fawns (Dookia, 2002). They generally remain 2-3 days on the birth bed-site, in exposure area they extend their head and neck along the ground and attempt not to get up and escape from predators (Kankane, 2000). Fawn's body having no odour and by any kind of disturbance they put head down on the ground or head and neck extend along the ground and remain motionless, eyes seem to be fearfully (Jakher & Chaudhary, 2011), in exposure area they excellently camouflage with surrounding. These are obviously excellent tactics or devices used by gazelle fawns to escape from predators. The mothers give less time for foraging as they remain very attentive and within 10 meters periphery from the fawn's site. Mothers do not feed the fawns as and when they find any kind of danger nearby. When there is any predator/unusual person the mother runs far away from the fawn's-site, probably for diverting the vision of the predator/unusual person to save the fawn. By these protective devices, in the area fawn's mortality is observed comparatively lower than adult mortality.

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