HELMINTHIC INFECTION IN WILD CANIDS IN ZOOLOGICAL GARDENS OF GUJARAT

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Limited area in enclosures make captive wild animals prone to helminthic infections. Although utmost care is taken on feeding, watering and sanitary condition inside the zoo, it is not possible to prevent or eliminate all parasites. This study was undertaken to know the prevalence of helminthic infections in captive wild canids.

During regular monthly visits to Ahemedabad, Baroda and Junagadh zoos, pooled group faecal samples were collected at random from five Golden Jackals, four Indian Foxes and Wolves in 6 x 3" plastic bags. They were properly labelled and brought to the laboratory of the Department of Parasitology for examination. Sedimentation technique was used to detect parasitic infection.

The results are summarized in Table 1. Out of 156 group faecal samples examined from wild canids, 132 samples (84.61%) were positive for helminthic infections of which 107 samples (80.06%) had nematode and 25 samples (18.94%) had cestode infections. In the present study, irrespective of season, the predominant infection in wild canids was that of hookworms followed by ascarids, *Taenia* spp., *Trichuris* spp., and *Dipylidium caninum*. Prevalence of ancylostomes (34.61 %) was higher than ascarids (24. 35 %). Infection of *Trichuris* spp. was not observed in wolves and infection of *Dipylidium caninum* was lowest in foxes. Similar findings were reported by Custer and Pence (1981) in Texas; Phillips and Sheck (1991) in U.S.A.; Richardson *et al.*, (1995) in United Kingdom; Papadopoulos *et al.*, (1997) in Greece and Modi *et al.*, (1997) in Bihar (India). Parasitic infection reached 90% and above during monsoon in foxes, while in jackals and wolves it was during summer. The higher prevalence of parasitic infection might be due to fewer animals in each group.

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Table 1. Seasonal incidence of helminthic infection in wild canids.

English name	Scientific name	Seasons	TS	TP	Ascarids	*Ancylostoma* spp.	*Trichuris* spp.	*Taenia* spp.	*Dipylidium caninum*
Golden Jackal	*Canis aureus*	Summer	20	18(90.00)	5(25.00)	6(30.00)	4(20.00)	2 (10.00)	1(5.00)
		Monsoon	20	16 (80.00)	4(20.00)	5(25.00)	3(15.00)	3 (15.00)	1(5.00)
		Winter	20	17(85.00)	4 (20.00)	8(40.00)	2(10.00)	2(10.00)	1(5.00)
Subtotal			60	51(85.00)	13(21.67)	19(31.67)	9(15.00)	7(11.67)	3(5.00)
Indian Fox	*Vulpes bengalensis*	Summer	16	12(75.00)	4(25.00)	5(31.25)	2(12.50)	1(6.25)	-
		Monsoon	16	15(93.75)	3 (18.75)	6(37.50)	3(18.75)	2(12.50)	1(6.25)
		Winter	16	14(87.50)	5(31.25)	7(43.75)	1(6.25)	1.(6.25)	-
Subtotal			48	41(85.42)	12(25.00)	18(37.5)	6(12.5)	4(8.33)	1(2.08)
Wolf	*Canis lupus*	Summer	16	15(93.75)	4(25.00)	7(43.75)	-	3(18.75)	1(6.25)
		Monsoon	16	13(81.25)	3(18.75)	6(37.50)	-	2(12.50)	2(12.50)
		Winter	16	12(75.00)	6(37.50)	4(25.00)	-	1(6.25)	1.(6.25)
Subtotal			48	40(83.33)	13(27.08)	17(35.42)	-	6(12.50)	4(8.33)

Number in parentheses indicates percentage; TS - Total sample examined; TP - total sample positive

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