

Prevalence of helminth parasites of poultry under different managemental conditions

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A survey of helminth parasites of domestic fowl carried out in Faisalabad (Pakistan) between 1994 and 1996 showed a high prevalence of nemaodes infestation in broiler and local poultry. *Ascaridia galli* and *Heterakis* spp. were more prevalent in both groups of birds. *Syngamus tracheae* and *Capillaria* spp. were also present in both groups. *Raillietina* spp. were the only cestode found in both the groups of birds. *Postharmostomum commutatum* (trematode) was occurred only in local fowl.

Key words : Prevalence, Helminth, Poultry, Management

Indigenous birds are reared on free range and receive very little attention from their owners. They supply the bulk of the dietary osla dna saera larur eht ni noitalupop eht fo tsom ot nietorp provide most of the chicken meat for caterers.

Exotic birds received as day old chicks from hatcheries and sold to farmers, receive good attention from their owners. In Pakistan helminthiasis is still very important disease as the standard of husbandry is very poor, also the climatic conditions are quite favorable for the development of the parasites. In a survey Ssenyonga (1982) showed a high prevalence of *Ascaridia galli*, *heterakis gallinarum*, *Syngamus tracheae* and *Raillietina* spp. The survey also showed that many birds had multiple infestations. The present study reported the prevalence of helminths of domestic eht dnuora dna ni snoitidnoc latnemeganam tnereffid rednu lwof Faisalabad.

Material and Methods

A total 1200 alimentary tracts and tracheas (500 broilers from ordinary farms, 500 broilers from well managed farms and 200 local birds) were examined immediately after they had been eviscerated. Some of the tracheas were opened while fresh but in most cases they were immediately placed 10% formal saline. When intestinal tracts and tracheas were opened any large worms found were picked out, the intestinal contents were then washed into a black surfaced tray and the smaller worms were picked out by Pasteur's pipette. All the worms were stored in 70% Alcohol. Nematodes and cestode were identified on the basis of host and their morphological features (Yamaguty, 1959, 1961 and 1975).

Results

The results regarding prevalence of various helminths in birds from ordinary farm, well managed farm and from local indigenous

birds are presented in Table 1. It was reported that *Ascaridia galli* was the most prevalent nematode in birds of all management conditions being 30, 10 and 36% respectively. They were usually present in the small intestine but in heavy infestations worms were also present in the large intestine. In some birds a large number of worms were clumped together in the form of a mass and also found in the oviducts of some poorly laying local birds. The prevalence of *Heterakis gallinarum* was 10, 3 and 20% respectively in ordinary, well managed and local birds reared on free range, *Capillaria* spp. (6, 0 and 9% respectively) was found in both the small and large intestines. Broilers on ordinarily managed farms contained more *Syngamus tracheae* (8-25) as compared to local birds (4-10) and birds on well managed farms (1-8). *Raillietina* spp. was the only cestode found. The prevalence was high in both the groups but the burdens were higher (23%) in local birds. Two spp. were identified i.e *R. tetragona* and *R. cesticillus*. Trematode i.e *Postharmostomum commutatum* was found only in 2 local birds.

Discussion

The present studies were conducted to record the prevalence of various helminths in birds under different management conditions i.e broilers from ordinary farms, well managed farms and from local birds reared on free range. The incidence of *Ascaridia galli* was 30, 10 and 36 percent respectively. Similar results were also recorded by Maqbool et al (1996), Maqbool et al (1995), Jansen and Pandey (1989) and Ssenyonga (1982). The prevalence of *Heterakis* spp. was 18, 32 and 20 percent in ordinary, well managed and locally reared birds. Nearly similar results were also recorded by Ssenyonga (1982), Hayat and Hayat (1983), Haider (1978), Awan (1963) and Rehman (1958).

Importance of proper management is emphasized by Table 1 which shows the absence of some helminths in birds from well managed farms and reduced prevalence of other species. The prevalence of *Raillietina* spp. in all the groups of birds indicated that intermediate hosts are widely distributed and accessible even to the broilers from well managed farms. Ssenyonga (1982) also recorded similar results. *P. commutatum* (Trematode) found in the caeca of 4 birds. As this parasite use land snails as intermediate host which are more accessible for birds in free range, as also reported by Ssenyonga (1982).

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Table 1. Prevalence of Helminths in domestic fowls under ordinary, well managed and local birds reared on free range

Helminths	Birds on ordinarily managed farms	Birds on well managed farms	Local birds reared on free range
<i>Ascaridia galli</i>	30%	10%	36%
<i>Heterakis gallinarum</i>	18%	3%	20%
Capillari spp.	6%	0%	9%
Raillietina spp.	20%	6%	23%
<i>Postharmostomum commutatum</i>	0%	0%	2%
<i>Syngamus tracheae</i>	12%	0%	20%

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شیوع انگلهای کرمی طیور در شرایط مختلف مدیریتی

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در طول سالهای ۱۹۹۴ و ۱۹۹۶ بررسی‌ای بر روی انگلهای کرمی مرغ خانگی در فیصل آباد پاکستان صورت گرفت. مطالعه مزبور نشان داد که آلودگی نماتودها در جوجه‌های گوشتی و طیور محلی شیوع بالا دارد. *Ascaridia galli* و گونه *Heterakis* در هر دو گروه طیور مورد مطالعه با شیوع بالا مشخص گردیدند. *Syngamus tracheae* و گونه *Capillaria* نیز در هر دو گروه مشاهده شدند. گونه *Raillietina* تنها سستودی بود که در مورد گروه طیور مورد بررسی، پیدا شد. *Postharmostomum commutatum* (ترماتود) فقط در مرغان محلی رخداد پیدا نمود.

واژه‌های کلیدی: شیوع، کرم، طیور، مدیریت

