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STATE OF STUDY OF THE GELMINTOFAUNA OF CATTLE IN THE
CONDITIONS OF KARAKALPAKSTAN

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The climatic conditions of Karakalpakstan differ significantly from other regions of Uzbekistan. The basis of the livestock industry is an economically significant group - cattle (*Bos taurus dom*), which consists of various breeds and is a significant biotic component of terrestrial ecosystems. In the diverse farms of Karakalpakstan, numerous communities of dairy, meat, and meat-and-milk cattle are concentrated and raised. The number of animals is characterized by high stability and is simultaneously a definitive and intermediate host for various groups of parasitic worms.

Parasitic worms are widespread in cattle and pose a serious problem for veterinary medicine and healthcare. In this regard, the large species diversity of helminths and their abundance in infected host animals urgently require a more in-depth study of the parasite community, an assessment of the characteristics of parasitic system formation and the epizootic process, as well as the development of rational methods for pasture prevention of dominant cattle helminths in specific territories. All of this is of great scientific and practical importance.

Materials and methods. The main material consisted of qualitative and quantitative samples of helminths from cattle raised in livestock farms in Karakalpakstan. The helminths were collected during 2020-2024 by dissecting animals using known methods. Using the Scryabin's complete helminthological dissection method (1928), 19 individuals of various breeds of cattle were examined at slaughterhouses in the Kegeyli, Bozatay, Takhtakypyr, Kingrad, and Munich regions. Additionally, the incomplete helminthological dissection method was used to dissect individual organs of slaughtered animals: 116 – cattle that had become fertile.

The selected helminths were conceived according to the generally accepted methodology: cestodes and trematodes in 70% alcohol; nematodes in Barbagallo liquid.

To identify the helminths, we used known determinants and monographs (Ivashkin et al., 1981, 1989; Anderson, 2000; Azimov et al., 2015).

Results and their discussion. The results of the conducted research showed that the cattle raised in Karakalpakstan were found to be infected with the helminth community. The fertility of the livestock was 70%.

The helminth fauna consists of 26 species: the class of coelenterates is represented by 5 species: *Moniezia expansa*, *M. benefeni*, *Taenia hydatigena*, *Echinococcus granulosus*, *Taeniarhynchus saginatus*, 4 species of trematodes: *Fasciola gigantica*, *Calicophoron calicophorum*, *Gastrothylax crumenifer*, *Schistosoma turkestanicum*, and 17 species of nematodes: *Trichocephalus institutions*, *T. skrjabini*, *Chabertiacula*, *Trichostrongylus axei*, *T. vitrinus*, *Haemonchus contortus*, *Marshallagia marshalli*, *M. mongolica*, *Nematodirus*

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helvetianus, N. gymnatianus, Ostertagia ostertagi, Teladorsagia circumcincta, Dictyocaulus viviparus, Gongybinema associata, Skrylonema pulchrum, Parabronema labijabini, Setaria skratopapillosa (Table. 1).

Table 1.

The helminth fauna of cattle (*Bos taurus dom.*) Karakalpakstan

№	Type	Family	Group
Cestoda			
1	Moniezia expansa	Anoplocephalidae	Cyclophyllida
2	Moniezia benedeni		
3	Taenia hydatigena	Avitellinidae	
4	Echinococcus granulosus	Taeniidae	
5	Taeniarhynchus saginatus		
Trematoda			
6	Fasciola gigantica	Fasciolidae	Fasciolida
7	Calicophoron calicophorum	Paramphistomidae	Paramphistomida
8	Gastrothylax crumenifer	Gastrothylacidae	
9	Schistosoma turkestanicum	Schistosomatidae	Schistosomatida
Nematoda			
10	Trichocephalus ovis	Trichocephalidae	Trichocephalida
11	Trichocephalus skrjabini		
12	Chabertia ovina	Chabertidae	Strongylida
13	Trichostrongylus axei	Trichostrongylidae	
14	Trichostrongylus vitrinus		
15	Haemonchus contortus		
16	Marshallagia marshalli		
17	Marshallagia mongolica		
18	Nematodirus helvetianus		
19	Nematodirus oiratianus		
20	Ostertagia ostertagi		
21	Teladorsagia circumcincta		
22	Dictyocaulus viviparus	Dictyocaulidae	Pseudaliida
23	Skrjabinema ovis	Syphaciidae	Oxyurida
24	Gongylonema pulchrum	Gongylonematidae	Spirurida
25	Parabronema skrjabini	Habronematidae	
26	Setaria labiatopapillosa	Setariidae	

Of the 26 species of hard cattle helminths, 3 species are specific: Taeniarhynchus saginatus (larvae), Gastrothylax crumenifer and Dictyocaulus viviparus. The remaining species are characteristic of other species of parasites or, in general, are common to the studied animals, and in the faunas of helminths of large ruminants, they were affected by the exchange of individual components of parasitic faunas, which is inevitable in conditions of cohabitation and constant contact between different species in pasture habitats.



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Three species of helminths – *Taenia hydatigena*, *Echinococcus granulosus* and *Taeniarrhynchus saginatus* – parasitize the organism of a stunted livestock during the larval stage, meaning the stunted livestock performs the role of an intermediate host. The final hosts of the first two species are carnivores, and the final species is humans. A large herd of cattle is harvested during the incubation of eggs from these cetaceans with feed, at any time of year.

Conclusions. According to research results, the helminth fauna of cattle consists of 26 species: the class Cestoda is represented by 5 species, Trematodes by 4 species, and 17 nematode species, which belong to 15 families and 9 orders.

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