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## Prevalence of Ecto-and Endoparasites in Animals

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### ANNOTATION

*The article presents information on the spreading of common pest ecto- and endoparasites among farm and laboratory animals, as well as in the areas of livestock farms.*

**KEYWORDS:** *Anthropogenic, nymph, ixod, imago, ectoparasite, endoparasite, zoophile, synbovil, parasite, mite.*

**Introduction.** In recent years, as a result of the increasing pressure of anthropogenic factors and anomalous and technogenic phenomena on nature, serious bioecological shifts and successions have occurred, resulting in increased migration of harmful and beneficial species in biocenoses, biodiversity destruction, the emergence of atypical, persistent, mutant, resistant biopathogens, new parasitic systems, exogenous populations, and a new faunistic state. There have been cases of particularly dangerous transmissible or natural foci of disease that have previously been reduced or eliminated. Therefore, it is important to study the spread of harmful ecto- and endoparasites among agricultural and laboratory animals, as well as the creation of new harmless methods and biochemical means to combat them.

**Purpose of the study.** It consists in studying the distribution of ecto- and endoparasites that live as parasites in the organisms of agricultural and laboratory animals.

**Material and research methodology.** These bioecological, phenological, entomological, acarological, morphological, parasitological, migratory, sanitary, toxico-hygienic, therapeutic, preventive, economic, and other studies are accepted in modern bi methodology and veterinary medical science.

**Research results.** A total of 3036 head of cattle, 32477 head of sheep, 2959 head of sheep belonging to livestock farms in different regions, namely Toyloq, Payariq, Nurabad districts of Samarkand region, Kitob district of Kashkadarya region, Nurota district of Navoi region, Altinkol district of Andijan region, Nukus district of the Republic of Karakalpakstan, head goat, 42 heads of white mice, 68 heads of rabbits, 2 heads of dogs, and other animals available in the laboratories of the Veterinary Research Institute, were studied, their morphology, species, sex, and systematics were determined, species,

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Species of ecto- and endoparasites recorded among animals

Table 1

Types of animals	Types of ecto and endoparasites found	Names of diagnosed parasitic diseases	
In cattle:	<i>Hyalomma anatolicum</i>	Hyalommosis	Acarozis
	<i>Hyalomma plumbeum</i>	Hyalommosis	Acarozis
	<i>Hyalomma detritum</i>	Hyalommosis	Acarozis
	<i>Rhipicephalus sanguineus</i>	Ripicephalosis	Acarozis
	<i>Rhipicephalus bursa</i>	Ripicephalosis	Acarozis
	<i>Rhipicephalus turanicus</i>	Ripicephalosis	Acarozis
	<i>Alveonatus lahorensis</i>	Alveonasis	Acarozis
	<i>Dermacentor marginatus</i>	Dermacentorosis	Acarozis
	<i>Dermacentor spp.</i>	Dermacentorosis	Acarozis
	<i>Dermacentor dagestanicus</i>	Dermacentorosis	Acarozis
	<i>Bophilus calcaratus</i>	Boophilosis	Acarozis
	<i>Haematopinus eurytenuis</i>	Hematopinosis	Entomosis
	<i>Linognathus vituli</i>	Linognathosis	Entomosis
In Sheep:	<i>Psoroptes bovis</i>	Psoroptosis	Entomosis
	<i>Bovicola bovis</i>	Bovicolez	Entomosis
	<i>Hypoderma bovis</i>	Hypodermatosis	Entomosis
	<i>Bovicola ovis</i>	Bovicolez	Entomosis
	<i>Psoroptes ovis</i>	Psoroptosis	Acarozis
	<i>Sarcoptes ovis</i>	Sarcoptosis	Acarozis
	<i>Rhipicephalus bursa</i>	Ripicephalosis	Acarozis
	<i>Oestrus ovis</i>	Estrosis	Entomosis
	<i>Ctenocephalides ovis</i>	Ctenocephalidosis	Entomosis
	<i>Rhipicephalus bursa</i>	Ripicephalosis	Acarozis
	<i>Bovicola caprae</i>	Bovicolez	Entomosis
	<i>Ctenocephalides caprae</i>	Ctenocephalidosis	Entomosis
	<i>Linognathidae caprae</i>	Linognathosis	Entomosis
In Donkeys:	<i>Bovicola equi</i>	Bovicolez	Entomosis
In Poultry:	<i>Menacanthus stramineus</i>	Menacanthosis	Entomosis
	<i>Argas persicus</i>	Argasidosis	Entomosis
	<i>Goniocotes hologaster</i>	Goniocotosis	Entomosis
	<i>Dermanyssus gallinae</i>	Dermanissosis	Acarozis
In Dogs:	<i>Trichodectes canis</i>	Trihodectosis	Entomosis
	<i>Rhipicephalus turanicus</i>	Ripicephalosis	Acarozis
	<i>Ctenocephalides canis</i>	Ctenocephalidosis	Entomosis
In the case of the white mouse:	<i>Allodermanyssus sanguineus</i>	Allodermanysosis	Acarozis
	<i>Laelaps echidninus</i>	Laelapsosis	Acarozis
In the Guinea pig:	<i>Gliricola porcelli</i>	Clericosis	Entomosis
In Rabbit:	<i>Rhipicephalus bursa</i>	Ripicephalosis	Acarozis
On livestock farms:	<i>Musca domestica</i>		Entomosis
	<i>Stomoxys calcitrans</i>		Entomosis
	<i>Lyperosia titillans</i>		Entomosis

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Among agricultural and laboratory animals, it was noticed that such parasitic diseases as bovicosis, linognathosis, ripicephalosis, and hyalommosis are very common.

It is noted that pathogens of entomotic diseases (bovicolas, trichodectes, and others) are present in the bodies of animals throughout the year, mainly in November-May; pathogens of ixodidosis (ixodid ticks) are more common in late spring and summer months; nymphal forms are also observed in the winter months; and the alveonase mite mainly causes alveonase epizootics in winter (Table 2).

### *Infection of cattle with dominant ectoparasites by months*

**Table 2**

S/n	The name of the found parasites	Extensive damage by month, %											
		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
1.	Bovicola bovis	65	74	87	98	91	22	18	15	21	25	28	45
2.	Rhipicephalus bursa	0	0	14	23	68	87	94	90	53	13	3	0
3.	Hyalomma anatolicum	0	0	12	20	65	80	90	80	51	10	0	0

The reasons for the spread of the dominant ectoparasite *Bovicola bovis*, the most common among cattle, in these months are high air humidity, the dense keeping of animals in enclosed spaces, the relatively low resistance of animals, and the inadequate zoohygienic requirements of premises in which animals are kept. As observed, the food ration does not meet the regulatory requirements, which, in our opinion, are associated with factors such as the level of provision.

It was revealed that the degree of extensive infection with these dominant ectoparasites, common among cattle, is similar to that in sheep (Table 3).

### *Seasonal prevalence of dominant ectoparasites among cattle*

**Table 3**

S/n	The name of the found parasites	Extensive damage by month, %			
		Winter	Spring	Summer	Autumn
1.	Bovicola bovis	61,3	92.0	18.3	24.6
2.	Rhipicephalus bursa	0	35	90.3	22.7
3.	Hyalomma anatolicum	0	32.3	83.3	20.3

Thus, among large and small horned animals, the dominant species of ectoparasites belonging to the genera *Bovicola*, *Rhipicephalus*, *Hyalomma*, and *Ctenocephalidae* and the endoparasites belonging to the genera *Hypoderma*, *Psoroptes*, and *Oestrus* were identified. It has been established that representatives of the genus *Bovicola* are most common in winter and spring, while ticks of the genera *Rhipicephalus* and *Hyalomma* are most common in summer.

## CONCLUSIONS

1. In the conditions of livestock farms in Samarkand, Kashkadarya, Navoi, and Andijan regions, 41 species of ecto- and endoparasites and parasitic diseases were found to be widespread among agricultural and laboratory animals.
2. Among farm animals, ecto- and endoparasites: *Bovicola bovis*, *B. ovis*, *B. caprae*, *Ctenocephalides caprae*, *Ct. ovis*, *Oestrus ovis*, *Hyalomma anatolicum*, *H. plumbeum*, *Rhipicephalus bursa*, and among laboratory animals *Allodermanyssus sanguineus* and *Rh. bursa* are the main species and were found to be widespread as dominant species.
3. In the winter and spring months (maximum 61-91%), and in the summer and autumn months (up to 18-24% minimum), *Hyalomma anatolicum*, *H. plumbeum*, and ticks *Rhipicephalus bursa*, it was noted that more are in the summer months (83-90%), and a minimum of 20-35% in the

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spring and autumn months, and the endoparasite *Hypoderma bovis* is more common in the summer months (83-90%).

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