

PRELIMINARY STUDY OF CESTODES GENUS OF *TAENIA SPP.* AND *MESOCESTOIDES SPP.* FOUND IN RED FOXES

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Tapeworms are parasitic flatworms belonging to the class *Cestoda*, and the genus *Taenia* is known to exhibit high variability in morphological traits at the individual level. The variability may be influenced by the host in which the tapeworm resides, and the cestode genus comprises many species that cycle between predator-prey assemblages worldwide. Adult cestodes, which are typically composed of a head or scolex, neck, and a chain of proglottids, live in the small intestine of dogs, cats, and free-ranging carnivores around the world. To accurately identify species of larval tapeworms, it is important to have a comprehensive understanding of the entire life cycle of the worm, which typically includes a definitive host and an intermediate host.

From 2023 to 2024, a comprehensive study was conducted on 18 foxes (*Vulpes vulpes*) from the Akmola and Karagandy region to investigate the prevalence of parasitic infections. The study's results revealed that six (33.3%) of the studied foxes were positive for the presence of two different species of helminths, namely *Taenia spp.* and *Mesocestoides spp.* Further analysis of the morphological and morphometric characteristics of the detected helminths helped to identify the presumably species of the parasites. Morphological analysis is carried out using authoritative sources

such as atlases and monographs to identify adult tapeworms.

The identified species, *Taenia hydatigena* (2/6), *Taenia krabbei* (1/6), and *Mesocestoides sp* (3/6), are crucial findings that provide valuable insights into the prevalence and distribution of parasitic infections in fox populations. These insights are not only significant for our understanding of wildlife health but also for the development of effective control and prevention strategies. However, it is important to note that further research, particularly in the area of molecular genetics, is needed to determine the specific species of the detected parasites, underscoring the ongoing importance of this field of study.

Overall, this study highlights the importance of monitoring and controlling parasitic infections in wildlife populations, as these infections can have significant impacts on the health and well-being of both the host and other species in the ecosystem.

The research was carried out with financial support from the Committee of Science of the Ministry of Science and Higher Education of the Republic of Kazakhstan within the framework of project AP19576421 for 2023–2025.