
SPATIAL AND TEMPORAL PATTERNS OF TRICHINELLA IN MONTANA'S BLACK BEARS, 2004-2014

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Trichinella nematodes are a globally distributed, zoonotic parasite transmitted through the consumption of infected animal tissue. Humans are at risk of contracting *Trichinella* by consuming undercooked bear or mountain lion meat, and thus historically, Montana Fish, Wildlife, and Parks subsidized *Trichinella*-testing of hunter-harvested black bears (*Ursus americanus*) and mountain lions (*Puma concolor*). Here, we summarize 11 years of data (2004-2014) on the spatial and temporal distribution of *Trichinella* in Montana's black bears. Risk of infection was spatially variable, highest in northwest Regions 1 and 4, and was positively associated with black bear and grizzly bear (*Ursus arctos horribilis*) densities. Prevalence has been significantly declining across the state over time from a state-wide prevalence of 0.05 in 2004 to 0.02 in 2014. Potential causes and consequences are discussed. Montana Fish, Wildlife, and Parks stopped subsidizing *Trichinella* testing in 2015; hunters are asked to thoroughly cook their meat to an internal temperature of 165° F, which inactivates *Trichinella* species and most other parasites.