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Czech Journal of Animal Science

Mercury bioaccumulation in hair and skin of arctic foxes (*Vulpes lagopus*) and silver foxes (*Vulpes vulpes*) in rural and urbanized region

Dobrzański Z., Filistowicz A., Przysiecki P., Filistowicz A., Nowicki S., Walkowiak K., Czyż K.:

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Mercury bioaccumulation in hair and skin of silver and arctic foxes farmed in typically rural and urbanized regions (Wielkopolskie Voivodship, Poland) was

assessed. Hair and skin samples were collected and analyzed for total Hg content using atomic absorption spectrometry. Hairs and skin of foxes farmed in the rural region accumulated higher amount of Hg compared to animals from the urbanized one. Species effect (lower Hg concentration in *V. lagopus*) was noted, females having higher accumulation compared with males. The highest Hg content was observed in hairs of *V. vulpes* females in the rural region (0.207 mg/kg on average), and in skin of *V. lagopus* females (0.0082 mg/kg on average). Highly significant correlation ($r = 0.796$) was noted between Hg content in skin and hairs of farm foxes. The present study confirms the previous finding that non-invasively collected hair samples are a good tool applicable in evaluating heavy metal load of different environments.

Keywords:

farm; Canidae; hair coat; environment; mercury level; Poland

[[fulltext](#)]

