One Health Zoonotic Disease Management

Rabies in Alaska as an Example

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Infectious Diseases in a Changing Arctic

Foxes and Rabies in Alaska

Rabies

Kuzmin 2008 and state epi

Rabies

no endemic rabies

Arctic

red fox

Kuzmin 2008 and state epi

Adapted from IUCN

Foxes

red fox

Adapted from IUCN
Conceptual Framework for Rabies in Alaska

Fig. 4. Hypothetical model of climate change on human exposure to arctic fox rabies in Alaska.

Ecological Niche of Rabies in Alaska

Model based on endemic but predicts most outbreak cases as well

Will Climate Change Alter the Ecological Niche for Rabies in Alaska?

What has happened so far?

\[ y = -0.4553x + 930.81 \]

Hueffer, K., Murphy, M.D. *International Journal of Circumpolar Health* in press
Outlook

• It’s connected
• It’s complicated
• It’s going to be surprising