



EMERGING RISK: *Echinococcus multilocularis* IN ONTARIO



Echinococcus multilocularis (EM) is also known as the fox tapeworm. Foxes, coyotes and other canids (including domestic dogs), and rarely cats, can carry adult worms in their intestinal tracts. These hosts typically get infected by eating infected small mammals (see below), and shed tapeworm eggs in their feces.

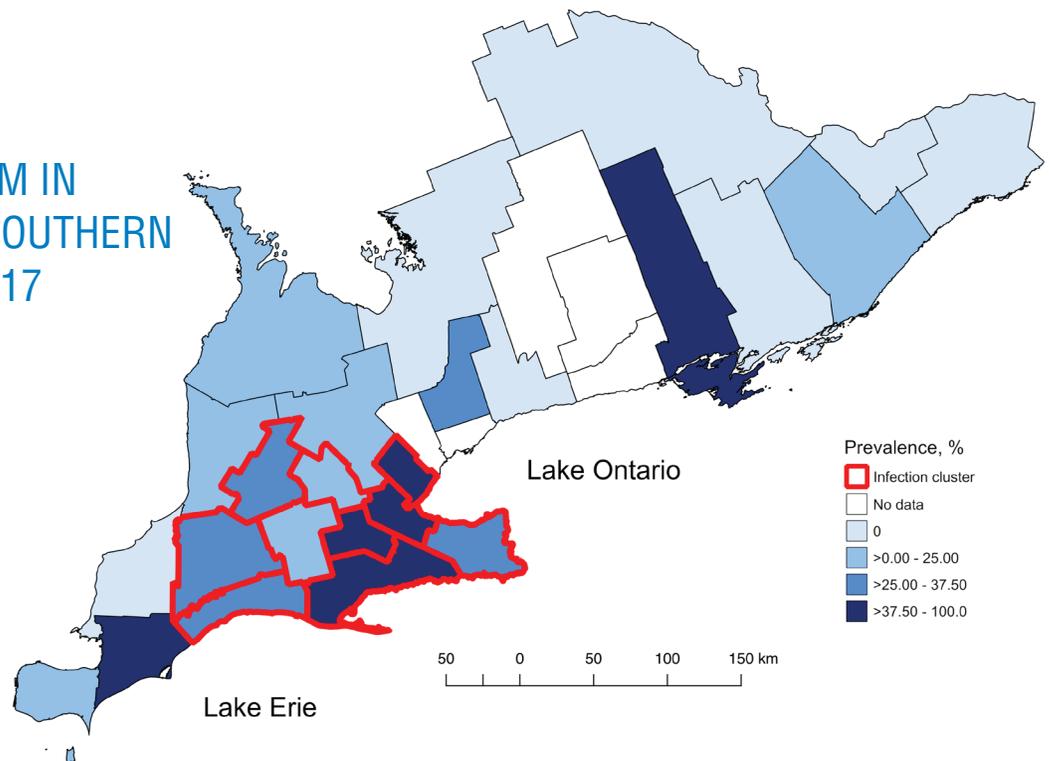


The eggs are usually ingested by rodents or other small mammals. They hatch in the intestine, and the larvae then migrate primarily to the liver and form budding cysts that behave like a malignant tumour. This is called **alveolar echinococcosis (AE)**. Sometimes AE occurs in dogs too.



Humans are an accidental host for EM. If a person ingests the eggs from the feces of an infected dog or wild canid, then AE can develop. The cysts grow slowly, so the clinical incubation period can be 5-15 years. **AE can be very difficult to treat** due to the invasive growth of the parasitic cysts.

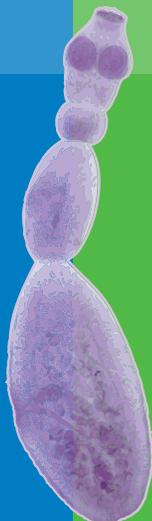
PREVALENCE OF EM IN WILD CANIDS IN SOUTHERN ONTARIO, 2015-2017 (KOTWA ET AL. EID 2019)



THROUGH A UNIVERSITY OF GUELPH RESEARCH STUDY CO-SPONSORED BY OAHN AND BAYER ANIMAL HEALTH, **FECAL EM SHEDDING WAS CONFIRMED IN 23% OF WILD CANIDS (COYOTES AND FOXES) TESTED IN SOUTHERN ONTARIO, WITH AN INFECTION CLUSTER IN THE WESTERN-CENTRAL REGION.**

WHAT CAN VETERINARIANS DO?

- ✓ Emphasize the importance of routine fecal exams for dogs at high risk of exposure (e.g. dogs that hunt small mammals, or dogs imported from endemic areas) – but remember that the eggs can be hard to detect
- ✓ Pets shedding tapeworm eggs or at high risk of exposure should be dewormed monthly with praziquantel
- ✓ Unusual masses in the liver or elsewhere in the body should be tested to confirm they are not AE



WHAT CAN OWNERS DO?

- ✓ Don't allow pets to hunt or scavenge other animals, and don't allow hunting dogs to eat raw offal
- ✓ Pick up pet feces promptly to prevent contamination of the environment, and wash hands thoroughly when done
- ✓ If working with soil that may be contaminated with feces from dogs, cats or wild canids, wear gloves and wash hands thoroughly when done