Qualia

Sharing habitats means sharing diseases

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Bobcats are just one of the wild species that have adapted to living side-by-side with humans and domestic animals. (Image: NASA)

The initial results of a multi-year study show domestic cats, bobcats, and pumas that live in the same area share the same pathogens, and these pathogens can spread through contact with shared habitat. This means that even if wild cats and domestic cats never come into contact with each other, they can still share diseases such as *Bartonellosis* and *Toxoplasmosis*. What's more, pet cats may be bringing these diseases into human homes, where they can spread to people. Pets may act as a bridge of infection between wildlife and humans, affecting the health of all involved.

<u>In another recent study</u>, some of the same researchers looked at the parasites bobcats and humans share. They compared fecal samples from bobcats in urban areas with those from rural areas. The findings show bobcats are more likely to pick up parasites such as *Giardia duodenalis* when they are closer to urban areas

But the most interesting finding is how the bobcats were acquiring the parasites. The researchers determined these urban bobcats picked up the parasites from humans, rather than the other way around. Humans transmitted the pathogens to bobcats, most likely through contaminated water around cities.

Bobcats are just one of the wild species that have adapted to living side-by-side with humans and domestic animals. As human development encroaches on wildlife habitat, it becomes easier for one species to spread diseases to another. Wild species may be susceptible to diseases that humans or domestic animals carry. Concurrently, wildlife can carry and spread diseases to humans and their pets. These studies demonstrate that humans, domestic animals, and wildlife are increasingly sharing the same space, and this growing interaction is facilitating the spread of some diseases between species, affecting the health of us all.

Relates Links:

- Three Pathogens in Sympatric Populations of Pumas, Bobcats, and Domestic Cats: Implications for Infectious Disease Transmission in PLos One
- Zoonotic Parasites of Bobcats around Human Landscapes in the Journal of Clinical Microbiology