Rabies and One Health: When the Forest Enters the City

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This research is part of the One Health Creating Solutions project.
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Abstract
Rabies is a virus spread via saliva, often through a bite by infected animals to people and can be spread to any mammal, including house pets like dogs and cats. Signs to look for are behavioral changes, paralysis, vomiting, difficulty swallowing, and excessive saliva. The incubation of rabies varies greatly but until clinical signs are shown it cannot be transmitted and cannot be tested for in living animals, only by studying dead animal's brains. As of right now there is no cures for rabies, and it is most often deadly. There are on average 2 rabies cases in humans per year in the US but it is possible that as humans continue to expand and more wild animals are pushed into cities, we could see an increase in case numbers. Many people have outside pets, like cats, whose actions are not monitored and are not up to date on vaccines. In Idaho specifically, it is recommended that pets 12 weeks and older get rabies vaccinations yearly, but it is not required. This is surprising considering how rural Idaho is. There is also very little education around rabies for children, who are more likely to contract rabies as touching a wild animal seems of very little consequence. I believe the next step for us is to increase rabies education in the general population and in young children. One way we could do this is to begin educating young children in elementary school about the dangers of playing with wild animals beyond getting hurt and continue this education into future classes. By middle school kids should understand that rabies is not curable and if you get bit it can be fatal. Especially in rural states like Idaho this is essential for us to keep our pets and ourselves safe. With this increase in rabies education hopefully we will be able to stop rabies for ourselves and our pets so we can enjoy the wilderness together.

Keywords
biological and life sciences, One Health Creating Solutions

Comments
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This student presentation is available at ScholarWorks: https://scholarworks.boisestate.edu/vip_2020/11
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What is Rabies?
- Rabies is a virus spread via saliva
- Rabies can be spread to any mammal
- Rabies cannot be transmitted until clinical symptoms are shown
- Rabies can only be studied in a dead animal's brain
- As of right now there is no cure for rabies
- There are on average only 2 rabies cases in humans per year in the US
- It is possible that as humans continue to expand where we live, more wild animals can be pushed into cities
- Many people have outside pets, like cats, whose actions aren’t monitored and are not up to date on vaccinations.

Vertically Integrated Projects: One Health Creating Solutions

How to Recognize Rabies
- Symptoms to look for:
  - Behavioral changes
  - Fever
  - Headache
  - Hallucinations
  - Fear of drinking and swallowing
  - Anxiety

One Health and Rabies
- When people think of rabies, they often think of crazy out of control dogs or feral animals
- They don’t think of the raccoon in their trash or the coyote pack near their home
- They have the potential spreading it to their pets or their pet could infect them
- Humans are increasingly expanding into wildlife territories and moving out into nature
- Going into nature with our pets is a common pass time
- If your dog(s) are not up to date on their rabies vaccines it could lead to an infection

Rabies in Idaho
- In Idaho it is recommended that pets 12 weeks or older get rabies vaccinations
- It is not required and the statistics for how many household pets get it is not recorded
- This is surprising considering how rural Idaho
- There is little education about rabies for young children
- Young children are more likely to contract rabies as touching a wild animal seems fun and of little consequence

Next Steps:
- I believe the next step for us is to increase rabies education in the general population and young children
- One way we could do this is to begin educating young children in kindergarten or first grade about the dangers of playing with wild animals
- I believe for younger kids they should be told not to touch the animals
- By middle school these kids should be able to know that rabies is not curable
- Especially in rural states like Idaho this is essential for us to keep our pets and ourselves safe
- Increase in rabies education we will be able to stop rabies for ourselves and our pets
- we can all enjoy wilderness together

Species Rabies Typically Infects:
Predominate specie infected:
- Bats
- skunks
- dogs
- foxes
- Raccoons
- etc.

Rabies Symptoms
Signs to look for are:
- Behavioral changes
- Fever
- Headache
- Hallucinations
- Fear of drinking and swallowing
- Anxiety

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Rabies is a major public health problem
- 99% humans contract from dog bites
- 4 out of 10 deaths are of children

Rabies is 100% vaccine preventable
- To save lives
- No bites = No rabies
- Learn how to react
- Zero by 30
- 30 September - World Rabies Day

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Literature Cited