

## TREMATODES

### RIBEIROIA ONDATRAE





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16 April 2015



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## Outline

- ▣ Define Trematodes
- ▣ Life Cycle
- ▣ Symptoms of trematodes
- ▣ Associations of Decline
- ▣ Importance

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## What is Ribeiroia?



Credit: Jason Bellows

- Trematode parasite
- Has one of the worlds most complicated life cycles
- Can be found in wetlands
- Ribeiroia is known to cause severe limb malformations and elevated mortality in amphibians. (Wilson, 2005)

- Phylum: Platyhelminthes
- Class: Trematoda
- Order: Echinostomida
- Family: Psilostomatidae
- Genus: Ribeiroia
- Species: Ondatrae

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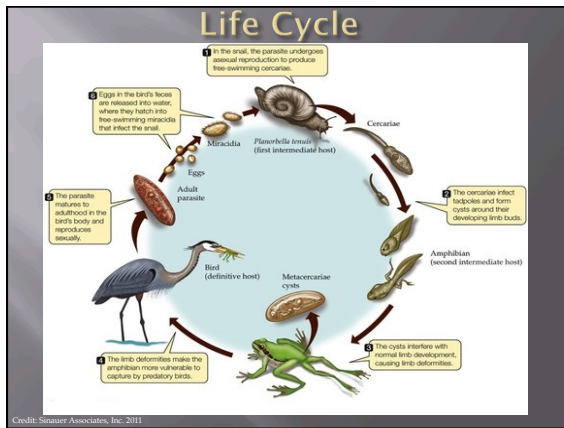
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### How Does Ribeiroia Kill?



- Indirect mortality resulting from increased predation of frogs with deformed or missing limbs is likely to be substantial.
- Extra limbs, partially missing limbs, skin fusions and limb extensions

- Most abnormal frogs die before reaching sexual maturity



(Johnson, 1999)

Credit: University of Colorado, Boulder

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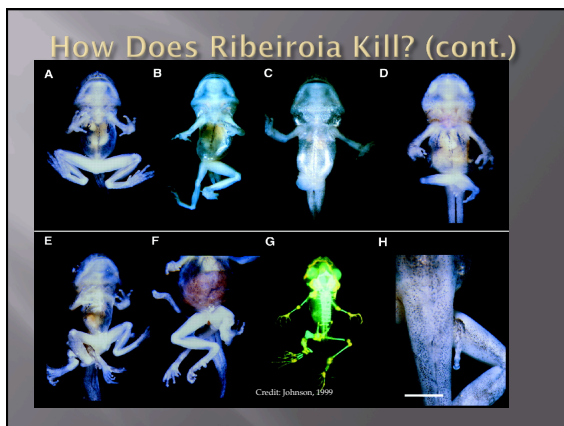
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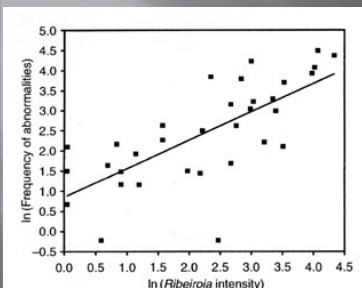
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## Associations of Decline



- The frequency of abnormalities grew gradually yet continuously as the Ribeiroia intensity increased

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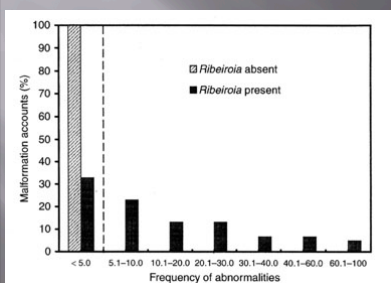
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## Associations of Decline (cont.)



- Abnormalities were found in all areas where Ribeiroia was present. There was less than 5% with abnormalities found in the areas where Ribeiroia was absent.

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## Most Important Because...

- ❑ Malformations might promote parasite transmission by increasing the susceptibility of infected amphibians to predation by definitive host. (Sutherland, 2003)
- ❑ It is very easy to spread from one water source to another.




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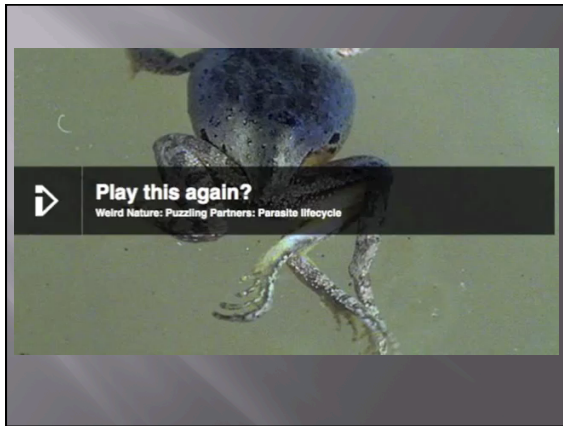
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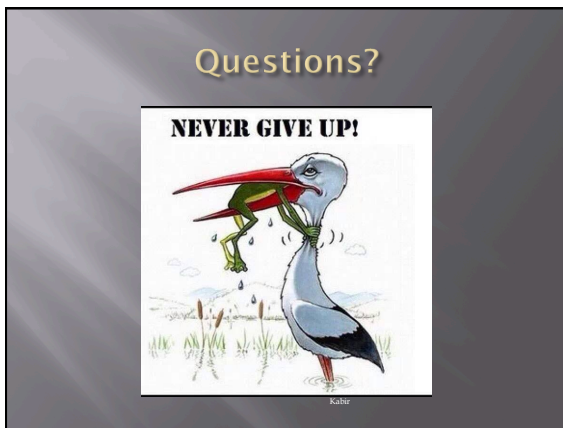
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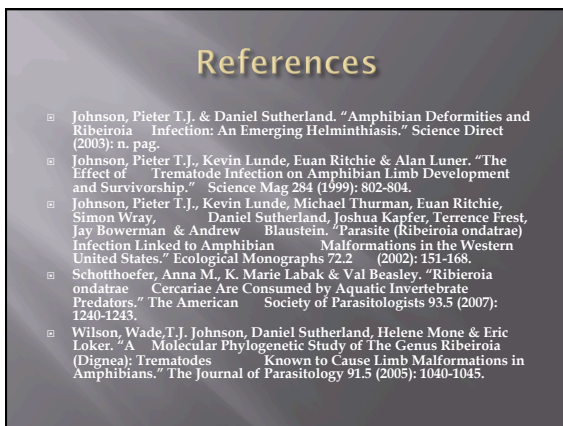
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