



Introduction to Amphibians



Amphibians

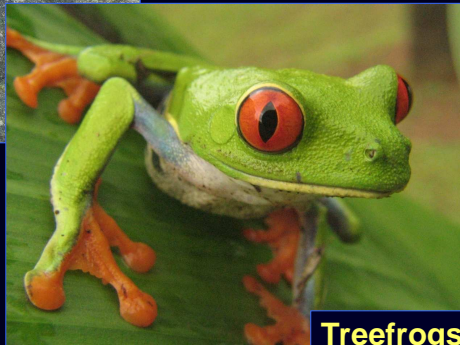
- Skin (moist) is a lung
- Rapidly gain or lose water
- Complex development
- Water removal kidneys

Lungless Salamanders



© William Leonard

Where are
the lungs?



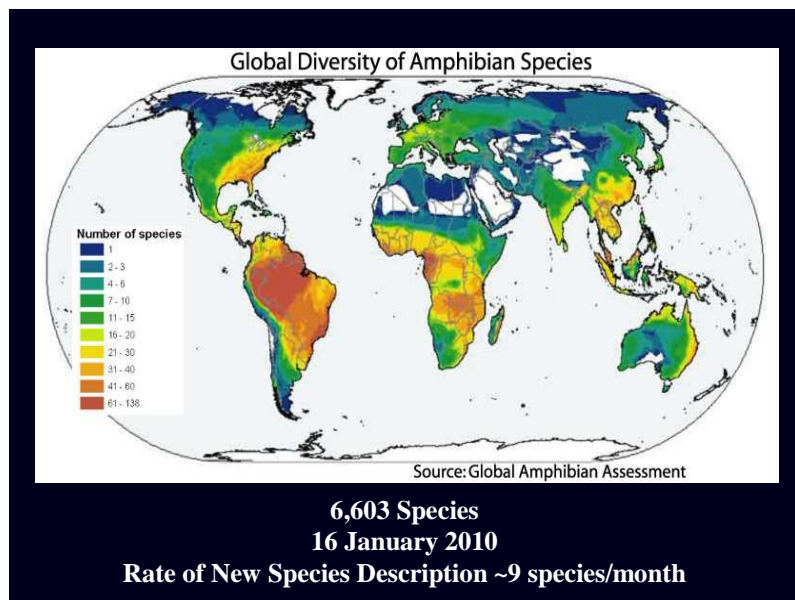
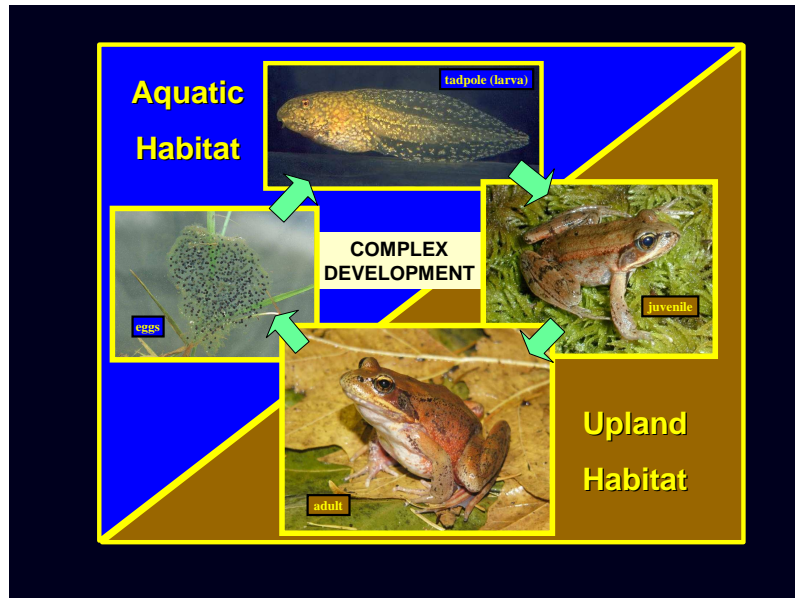
Treefrogs

Water is...

gained or...

...lost rapidly.



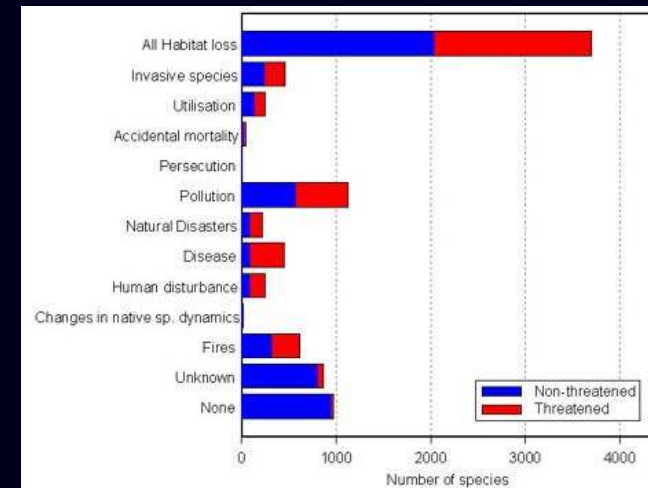




Amphibian declines? How severe?

“...32.5% of amphibian species globally threatened, compared with 12% of birds and 23% of mammals...”

(Stuart et al. 14 October 2004. Science)



Reasons for Amphibian Declines
from Global Amphibian Assessment (Stuart et al. 2004)

**Presumed Extinct
in the Wild**



Kihansi Spray Toad



Kihansi Gorge – Tanzania – East Africa

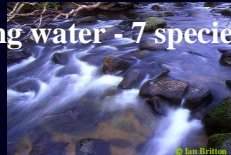
Amphibian Species

	Globally	Washington
Caecilians	176	0
Frogs (& Toads)	5,777	13(11)
Salamanders	581	15(15)
TOTALS	6,534	28(26)

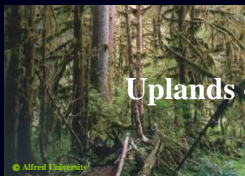
Amphibian Groupings

Are based on their reproduction in each of:

Flowing water - 7 species



Uplands - 5 species



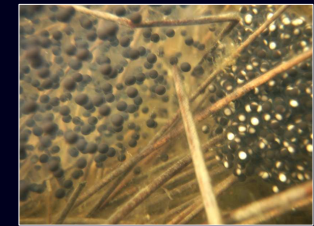
or Stillwater - 13 species



Stillwater Breeding Amphibians



- eggs laid in exposed locations
- pigmented eggs
- aquatic larval stage
- no parental care
- 4 salamander species and
11 frog and toad species (2 exotic)



Knowledge Totem



"The frog embodies lessons of the past and hope for the future."

Cowichan First Nation