What is a Species?



What information do scientists use to define species?

1.

2.

Same



Eastern Red-backed Salamander

Red-back phase





Different









Gray Treefrog

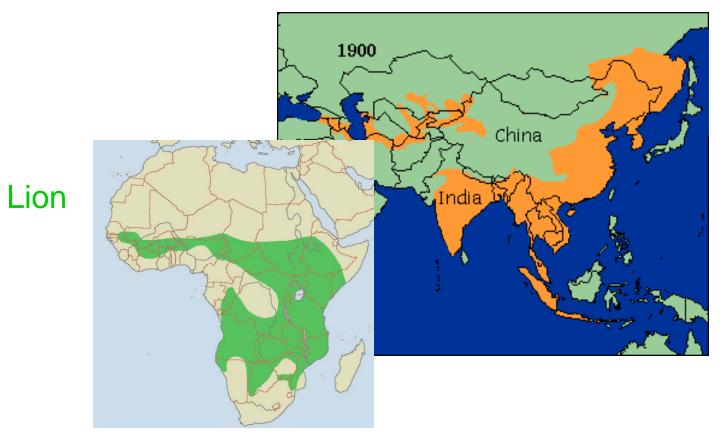
What biological factor defines a species?

Reproduction

What is a species?

 Groups of <u>interbreeding populations</u> that are <u>reproductively isolated</u> from other such groups

Tiger



Lions and tigers are <u>reproductively isolated</u> from each other







Lion



Tiger



<u>Hybrid</u> = a cross between 2 species

Liger

How many species are there?

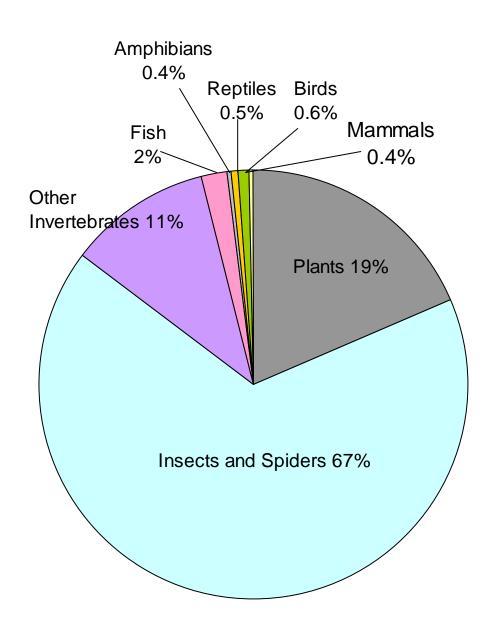
1.7 million known species

Rank groups by abundance



Bacteria	
Birds	
Fish	
Insects and Spiders	
Amphibians	
Mammals	
Other invertebrates	
Plants	
Reptiles	
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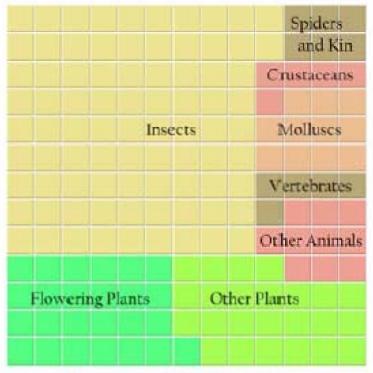
1	Mammals	5,416
2	Amphibians	6,200
3	Reptiles	8,240
4	Birds	9,934
5	Bacteria	10,000
6	Fish	29,300
7	Other invertebrates	168,000
8	Plants	287,655
9	Insects and Spiders	1,024,445



How many species are there?

- Estimated 2-10 million
- 15,000 new species/year
- 600 years to classify all species

Known Biodiversity (excluding microbes) Approximately 1.7 million named species of plants and animals.



1 square = 10,000 species

Estimated Biodiversity (excluding microbes) 10 million species

