

# Bell Ringer

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What are some common occupations people have in society?

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What are some common occupations people have in society?

If an ecosystem is like a society, what kinds of “jobs” would organisms have?

Niches



# What is it?

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Let's compare...

HABITAT → ADDRESS (city/state)

Then...

NICHE → WHICH HOUSE, OCCUPATION

# Example

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Clownfish

Ecosystem = marine (ocean)

Niche = lives among sea anemones for protection

produces mucus to protect against anemone stings



# Example

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Clownfish

Ecosystem = marine (ocean)

Niche = lives among sea anemones for protection

produces mucus to protect against anemone stings

**No other fish has the exact same “job” in this ecosystem!**



# Sharing a niche

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Two species can have the *potential* to thrive in the same niche.

- Example: two species of bird are successful in this type of tree.



# Sharing a niche

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*But what happens when they try to share the niche?*



# Sharing a niche

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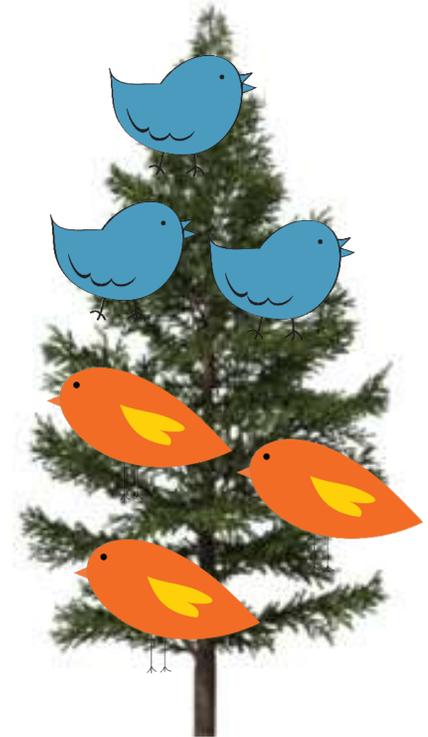
The two species must compete for resources in the niche.

One of the species will out compete the other.

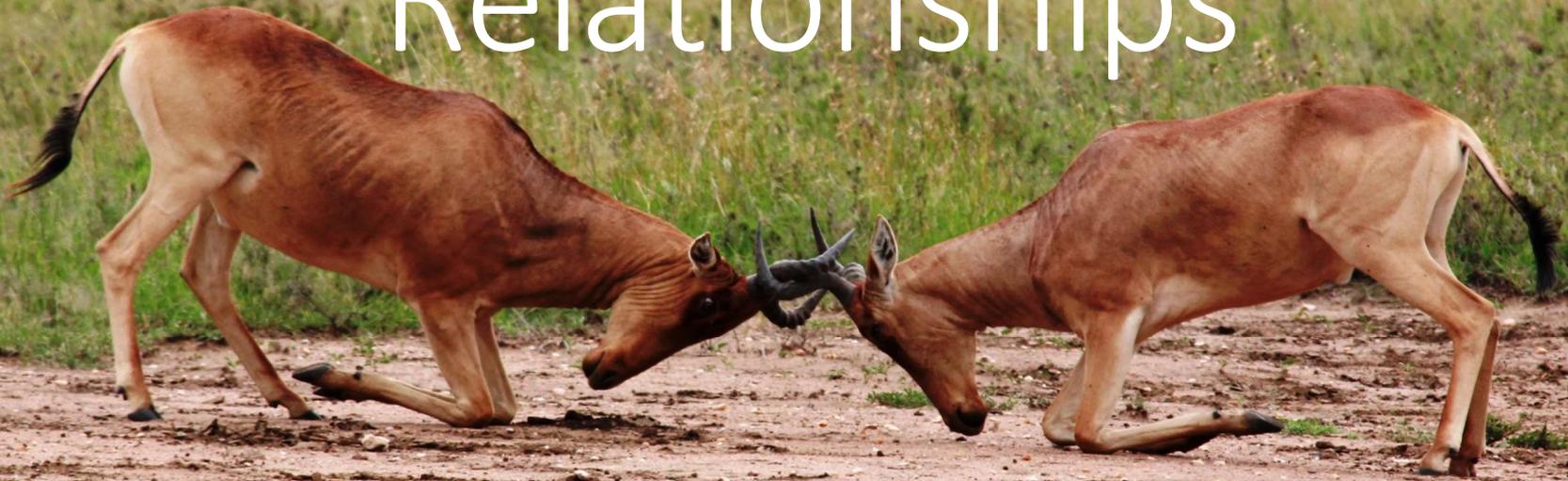
- Both species will have a smaller niche.

Example:

- Both species live in the same type of tree but their niche is limited to certain parts of these trees due to competition.



# Interspecies Relationships



# Competition

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Two organisms (or species) are in conflict over a limited essential resource.

Example: food, shelter, water, mates



# Predator-Prey

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Predator = organism that eats another organism.

Prey = the organism eaten by the predator.



# Symbiosis

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A close, usually long-term, relationship between two or more species.

**Mutualism** = Both species benefit from the relationship



**Parasitism** = One species benefits at the expense of the other



# Interspecies relationships

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**Competition** = for resources, mates

**Predator-prey** = one species hunts and kills the other for energy

**Mutualism** = two species benefit each other

**Parasitism** = one species benefits at the expense of the other

# EXIT TASK

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Describe how interspecies relationships (especially competition) shape an organism's niche.