

The Ecology of World Building

Creating Immersive Natural Environments for TTRPGs
Presented by Meredith Rex

Who am I?

Meredith Rex

Actual Real Life High
School Biology Teacher for
9 Years

And TTRPG Player and
GM of over 20 Years



SCAN ME



Drawing Inspiration from Natural Phenomena

A few things to consider...

- Throughout this presentation, if something speaks to you, use it. If it doesn't, then don't!
- Rely on your fellow gamers and their expertise.
- When playing a fantasy game suspension of disbelief is important.
- Explore natural environments when you are able.
- Stay curious!

Biodiversity



Resource

<https://www.ecomatcher.com/what-is-biodiversity-and-why-does-it-matter/>

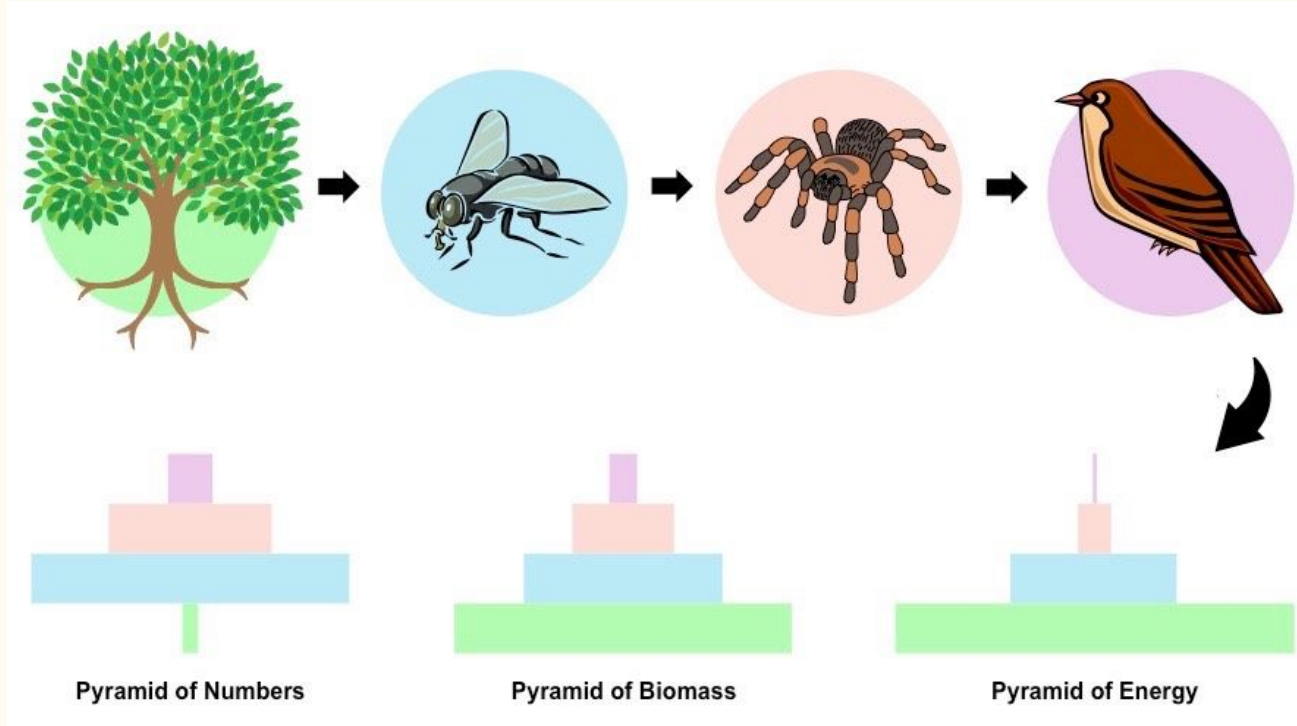
Biomes and Climate



Resource

https://www.panda.org/discover/knowledge_hub/teacher_resources/webfieldtrips/major_biomes/

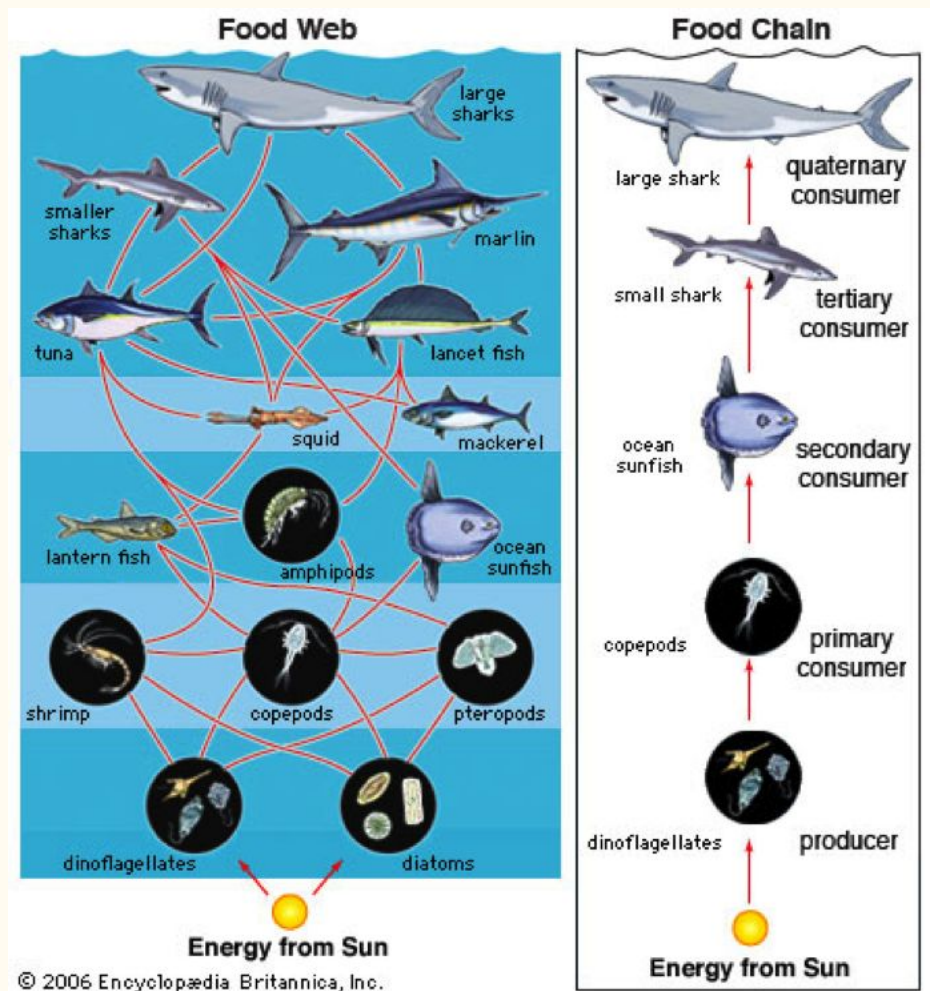
Ecological Pyramids and Energy Transfer



Resource

<https://old-ib.bioninja.com.au/standard-level/topic-4-ecology/42-energy-flow/ecological-pyramids.html>

Ecosystems and Energy



Resource

<https://oceantracks.org/library/general-ecology/energy-and-food-webs>

Photosynthesis, Plants, and Producers



Resource

<https://science.howstuffworks.com/life/cellular-microscopic/photosynthesis.htm>

Chemosynthesis



Resource

<https://oceanexplorer.noaa.gov/edu/materials/chemosynthesis-fact-sheet.pdf>

Carnivorous Plants



Resource

<https://www.nhm.ac.uk/discover/carnivorous-plants-meat-eaters-of-the-plant-world.html>

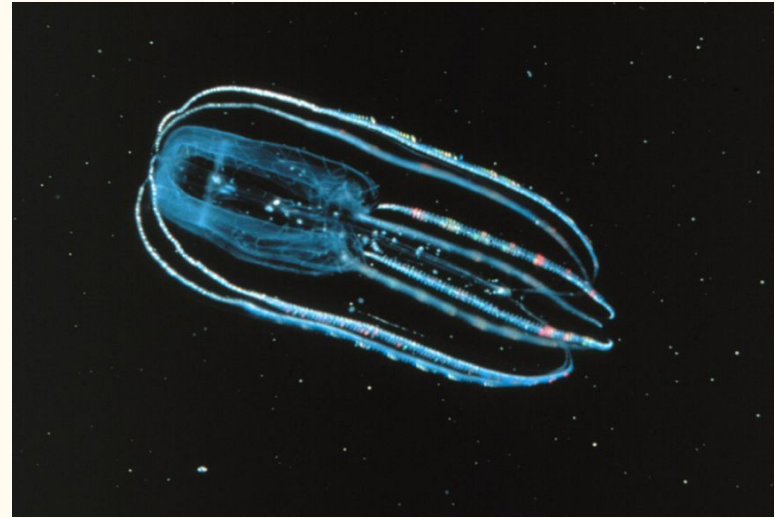
Decomposers and Fungi



Resource

<https://science.howstuffworks.com/life/cellular-microscopic/fungi.htm>


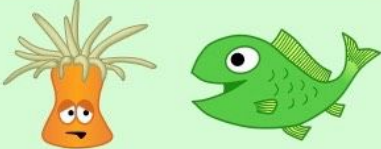

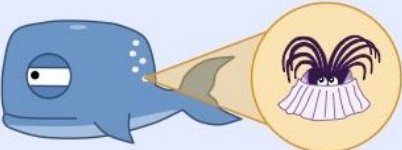


Bioluminescence



Resource

<https://education.nationalgeographic.org/resource/bioluminescence/>

Symbiosis

INTERACTION	TYPE OF SYMBIOSIS	EXAMPLE
 Benefits Benefits	Mutualism Species A benefits Species B benefits	 Sea anemone Clown fish
 Benefits Unaffected	Commensalism Species A benefits Species B unaffected	 Whale Barnacle
 Benefits Harmed	Parasitism Species A benefits Species B harmed	 Dog Tick

Resource

<https://old-ib.bioninja.com.au/standard-level/topic-4-ecology/41-species-communities-and/species-interactions.html>

Competition and Conflict



Resource

<https://www.discovermagazine.com/planet-earth/why-do-animals-fight-and-what-do-they-fight-about>

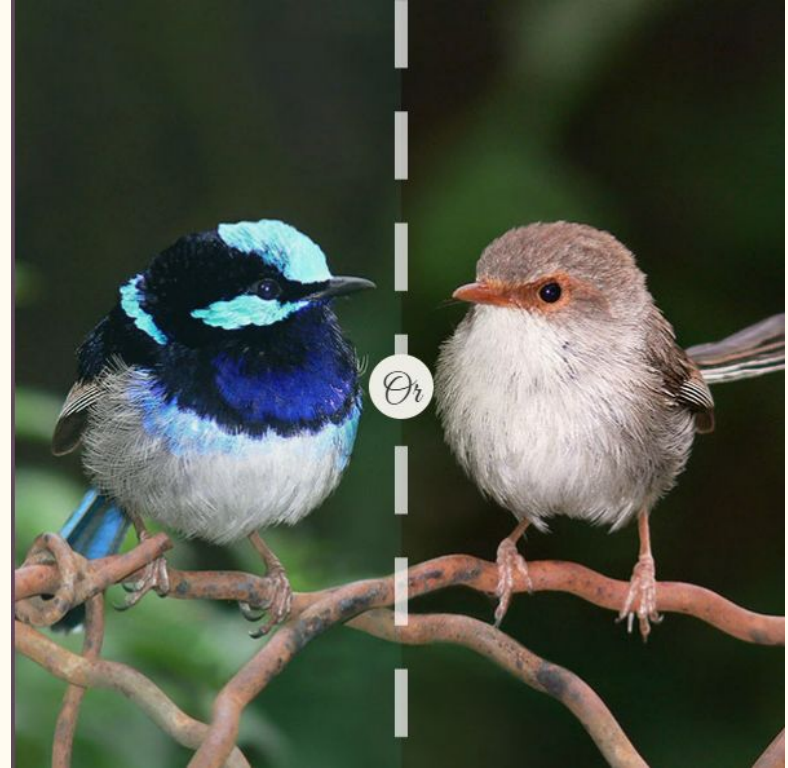
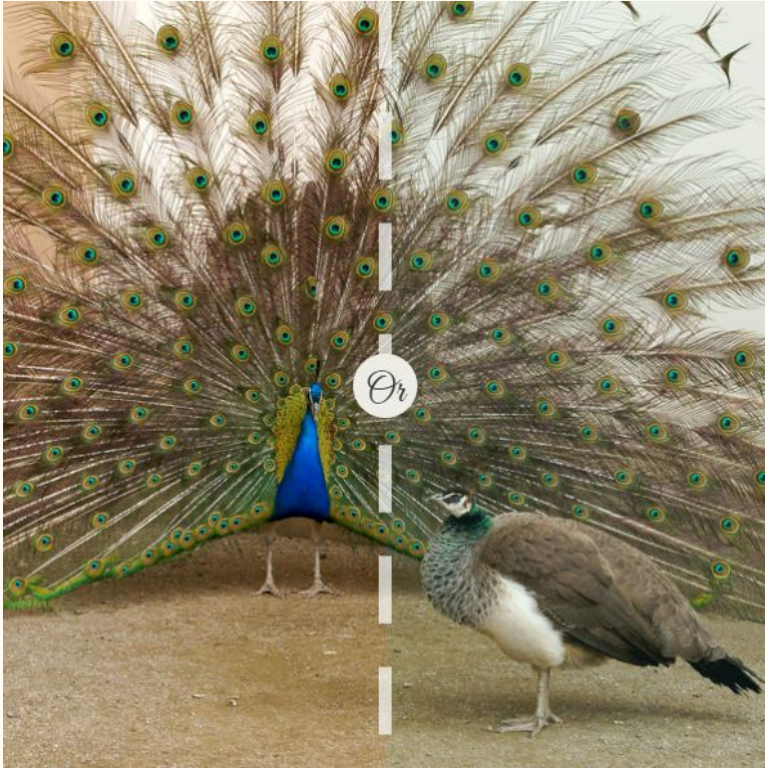
Protective Behavior in Animals



Resource

<https://www.earthreminder.com/animals-that-protect-their-family-and-young/>

Sexual Selection and Sexual Dimorphism



Resource

<https://academy.allaboutbirds.org/features/fancymales/fancy-males#%2Ffancy-males>

Diurnal, Nocturnal, and Crepuscular Animals

Diurnal Animals



Falcon. Photo by
Susanne Jutzeler on
[Pexels.com](https://www.pexels.com)



Honeybee. Photo by
Philippe Donn on
[Pexels.com](https://www.pexels.com)



Lizard. Photo by
Oleksandr Pidvalnyi on
[Pexels.com](https://www.pexels.com)

Nocturnal Animals



Owl. Photo by
Francesco on
[Pexels.com](https://www.pexels.com)



Moth. Photo by Egor
Kamelev on
[Pexels.com](https://www.pexels.com)



Bat. Photo by Stephen
Chantzis on
[Pexels.com](https://www.pexels.com)

Crepuscular Animals



Cougar. Photo by Nicky
Pe on [Pexels.com](https://www.pexels.com)



Deer. Photo by Devon
Rockola on [Pexels.com](https://www.pexels.com)

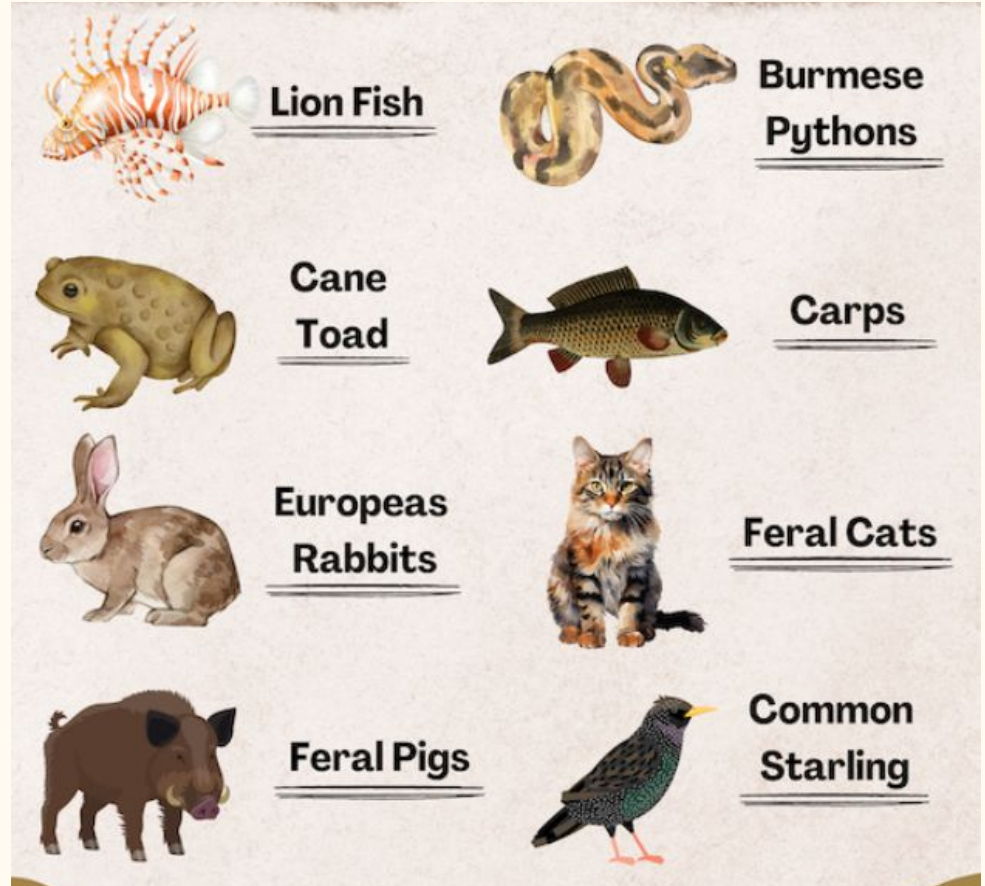


Hare. Photo by Ray
Bilcliff on [Pexels.com](https://www.pexels.com)

Resource

<https://wildearthlab.com/2023/06/21/nocturnal-diurnal-crepuscular/>

Invasive Species



Resource

<https://www.wildlifenomads.com/blog/what-is-an-invasive-species>

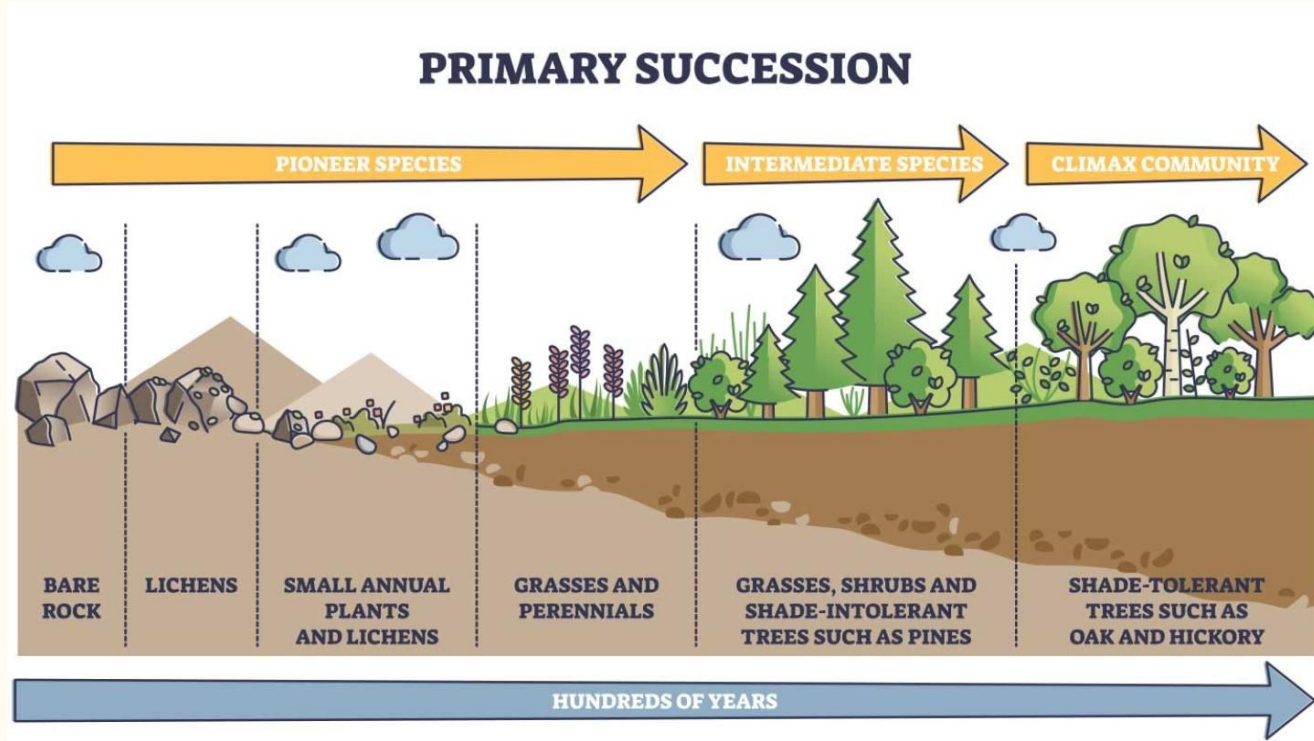
Domestication



Resource

<https://www.snexplores.org/article/explainer-what-is-animal-domestication>

Ecological Succession



Resource

<https://news.uchicago.edu/explainer/what-is-ecological-succession#what>

Decay of Man-Made Objects and Structures



Resources

<https://www.roadrunnerwm.com/blog/decomposition-clock>

Q&A

Presentation: The Ecology of World Building

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Slides and additional resources available at
www.featherlightarchives.com