

RangerManDan: Study Guide

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Play Synopsis

RangerManDan! is a fun, interactive, one-person show for kids or families about the environment and wacky people in it! Dan Haughey (hoy), professional Writer-Actor-Singer, becomes RangerManDan as he helps the audience learn about “biomes” or ecosystems and what can be done to protect and keep them in harmony with nature. At key points in the plot, kids will be invited to the acting area with RangerManDan to improvise pivotal scenes or to interact with some of the zany characters RangerManDan meets at a public park. Dan will help students learn about the values of recycling, trees, plants, flowers, bats, birds, bugs—pollenators— various species of river life, and problem-solving. Invasive and endangered species along with other wild critters will be encountered along the way! (Wow!) RangerManDan both entertains and guides children through an understanding of how all things and creatures relate in nature, with room to laugh at a few human foibles. Audience participation will be encouraged! The running time of the show is approximately 50 minutes with a short follow-up Question & Answer period. For more information about the show, Dan Haughey, or his biography, go to www.danact3.com . -- danfhaughey@gmail.com .

SYNOPSIS OF SCENES

PROLOGUE

Song: “This Land is Your Land” and Introductions

SCENE 1

Mr. Toad and Cleaning-Up Bertie’s Litter

SCENE 2

This is a BIOME!

SCENE 3

Invasive Silver Maple and Sam Shady

SCENE 4

Pat the Pollenator Punisher

SCENE 5

We Live on a Beautiful Planet & Bats and Owls are Cool

Song: “We Live on a Beautiful Planet”

SCENE 6

River Life: Otters and Asian Carps

EPILOGUE: Rules of the Toad

RangerManDan: Ecology Vocabulary

Here are special Ecology Words you will hear in the play, but not necessarily in this order.

1. **Asian Carp**, noun: any of several freshwater, cyprinid fishes (such as the bighead carp, silver carp, and grass carp) that are native to Asia and were accidentally introduced into U.S. waters where they have spread widely and are often considered pests. Feeding on vegetation and plankton, *Asian carp* — which actually encompasses four varieties of carp—are fast, prolific jumpers, fliers, and breeders that can weigh up to 100 pounds and eat several times their body weight a day. — Joel Hood, *Chicago Tribune*, 10 Jan. 2010> <*Asian carp* were imported in the 1970s to remove pond algae from catfish farms and quickly spread north along the Mississippi, Ohio, and Illinois rivers.

2. **biome**, noun:

It is defined as "the world's major communities, classified according to the predominant vegetation and characterized by adaptations of organisms to that particular environment" (Campbell). –from <http://www.ucmp.berkeley.edu/glossary/gloss5/biome>

Biomes are classified in various ways. This page will group biomes into five major types:



Aquatic



Deserts



Forests



Grasslands



Tundra

These exhibits explore the ancestor/descendant relationships which connect all organisms, past and present. **The importance of biomes** cannot be overestimated. Biomes have changed and moved many times during the history of life on Earth. More recently, human activities have drastically altered these communities. Thus, conservation and preservation of biomes should be a major concern to all.

Below is a nice comparison-contrast explanation from Ms. Ellen Loechner, Education Manager of the Quad Cities Botanical Center, Rock Island, Illinois, USA:

Biomes and ecosystems are often used interchangeably. I found this website very helpful:
<http://www.differencebetween.com/difference-between-biome-and-vs-ecosystem/>

· Biomes and ecosystems both tell us what type of critters we'll find in a specific place. (Plants, animals, bacteria, etc.—everything big OR small)

- The difference (between ecosystems and biomes) is that biomes tend to talk about much larger areas on the earth. They are the most simplified and biggest category a person can use when describing the earth and what lives in a specific place.—Similar to how we break down zoology... Kingdom, family, genus, species, etc. (I missed a few in there). Biomes would be considered the “kingdom” and ecosystems would be the “species”i.e. one is more specific than the other.

- Ecosystems can be very small, or large. There are many more types of ecosystems than biomes. You can talk about the ecosystem found in a glass of pond water, in a fish tank, or in the entire ocean. Ecosystems allow us to get much more specific about size and space. It's important to remember that the borders between biomes and between ecosystems are not permanent (like city or state lines), but rather move and change as time goes on. So as climate change takes place and different geographic areas become warmer or colder, the types of life (plants, animals) that place can support, changes. Therefore, the type of ecosystem or biome also changes. (An ecosystem map from 100 years ago will not look the same as an ecosystem map today).

3. biome loop, noun: the water and life cycle of a biome or even a mini-biome, in a constant smooth-running, non-stop circle or loop. See the Biome picture (cross-section) and arrows after the vocabulary, later in this Study Guide.

4. ecosystem, noun: The plants and animals that are found in a particular location are referred to as an ecosystem. These plants and animals depend on each other to survive. In a delicate balance, these lifeforms help to sustain one another in regular patterns. Disruptions to an ecosystem can be disastrous to all organisms within the ecosystem.

5. invasive, noun: plant or animal that is not native to a specific location; and has a tendency to spread, which is believed to cause damage to the environment, human economy and/or human health. Invasive species overtake and wipe out other species.

6. neonicotinoids, noun: pronounced, nēō'nikətinoid -- Chemical pesticides, either dry powder or liquid used in gardens and farmlands to protect plants; but these chemicals have been killing and reducing, bird, bug and insect populations of necessary “pollenators” like humming birds butterflies, bees, and other flying critters. **Neonicotinoids** are a class of neuro-active insecticides chemically similar to nicotine. The development of this class of insecticides began with work in the 1980s by Shell and the 1990s by Bayer. The neonicotinoids show reduced toxicity compared to previously used insecticides. Most neonicotinoids show much lower toxicity in birds and mammals than insects, but some breakdown products are toxic. The neonicotinoid “imidacloprid” is currently the most widely used insecticide in the world.

7. petroleum, noun: was formed as an oil from the remains of animals and plants that lived millions of years ago in a marine (water) environment before the dinosaurs. Over the years, the remains were covered by layers of mud. Heat and pressure from these layers helped the remains turn into what we today call crude oil. The word "petroleum" means "rock oil" or "oil from the earth." If spilled in oceans or rivers during transportation, it causes harm to the ecology and environment, especially living things.

8. pollenator, noun: animals, birds, or insects that assist in pollination, a process by which ripe pollen grains are transferred from the anther to the stigma of a flower, for helping plant reproduction. Examples of some pollenators can be hummingbirds, butterflies, bees, and other bugs.

9. predator, noun: an organism that preys on another organism; an animal that preys on another animal; a plant that preys on another plant(s). Invasive species are types of predators.

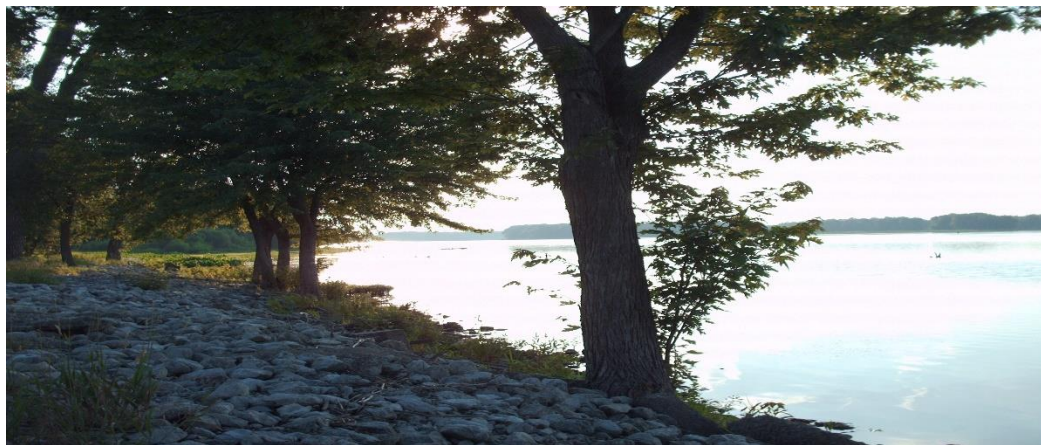
10. Ranger, noun: A warden, park ranger or forest ranger is a person entrusted (as a guide and officer) with protecting and preserving parklands – national, state, provincial, or local parks. "Parks" may be broadly defined by some systems in this context, and include protected culturally or historically important built environments, and is not limited to the natural environment. Some are history rangers.

11. species, noun: means kind or type; an endangered species is any type of plant or animal that is in danger of disappearing forever. If a species, or type, of plant or animal dies out completely, it becomes extinct.

BONUS WORD.

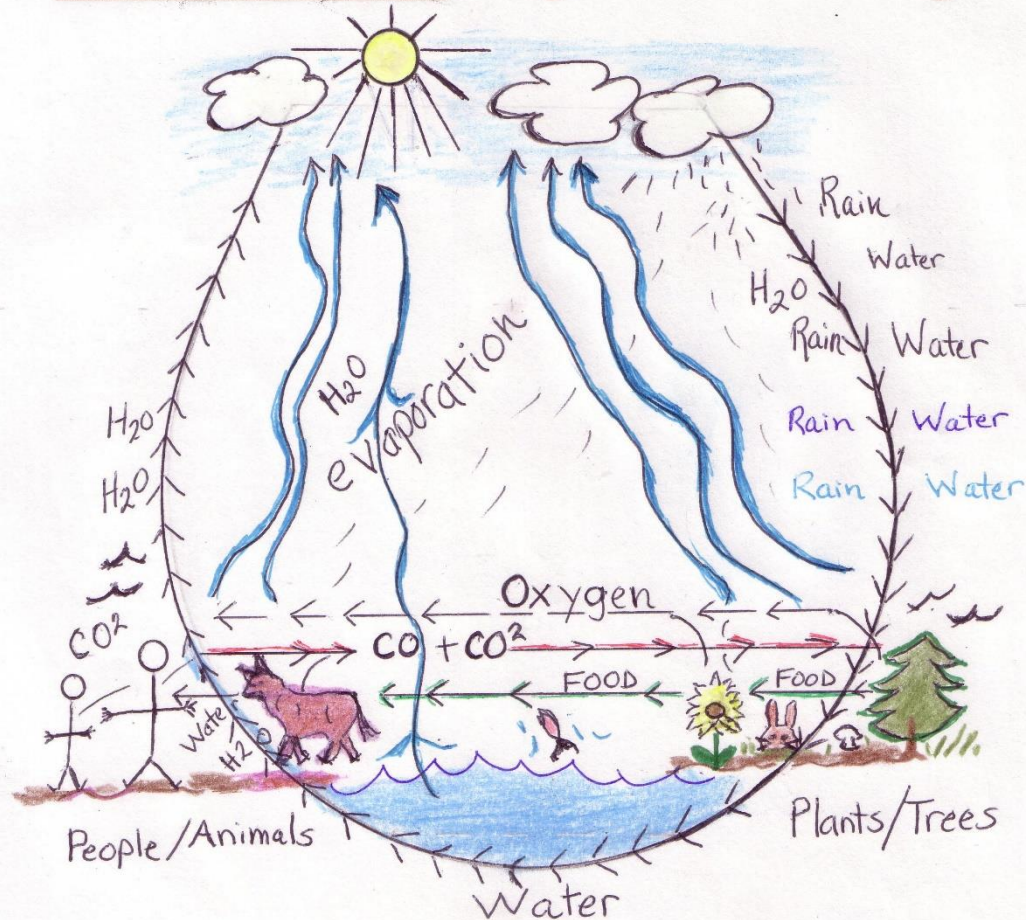
12. ecology, noun: the branch of biology concerned with the relations between organisms (plants, animals, even very small cellular life forms) and their environment; OR the environment as it relates to living organisms; Example Sentence-- "It changed the ecology of the island." (The term ecology is not directly stated in the play, but is often talked about in different ways.)

VOCAB EXERCISE. Imagine you are visiting a public park or forest that is on or next to the Mississippi River, or other big river near your community. Create and write a complete Example Sentence—using correct grammar—for each of the above terms, like the Example for #12, "ecology".



Can you see the simple Biome Loop or life cycle in the Biome picture below? Describe it to a friend or teacher.

Biome: (bī-om)



CREATE: Write very short story or short poem like the haikus below, about a plant, tree, or animal you have personally observed. Recall and describe your images of your poem's subject. If you write a short story, create at least two dramatic characters, give it a beginning, middle and end, and be sure to describe the environment as your characters solve happy or challenging problems. If you choose to write a poem, it can be some other type other than a haiku. Read your poetry, story aloud, or simply tell-aloud your creative writing to friend(s).

(Writing a haiku can be fun. It is a seventeen-syllable poem, (5-7-5 syllable pattern) in a three-line form of Japanese verse --that uses images showing something about the natural world.)

The Bald Cypress Giant.

Blackbirds in branches

Tall straight green, cone-like in shape

Proud thirsty conifer.

EXPLORE:

Find a picture of a Bald Cypress tree.

What biome would it most likely live in
and why?

Crazy Monkey Tree.

Zig Zag. Zany. Sharp.

Confuse a man OR monkey.

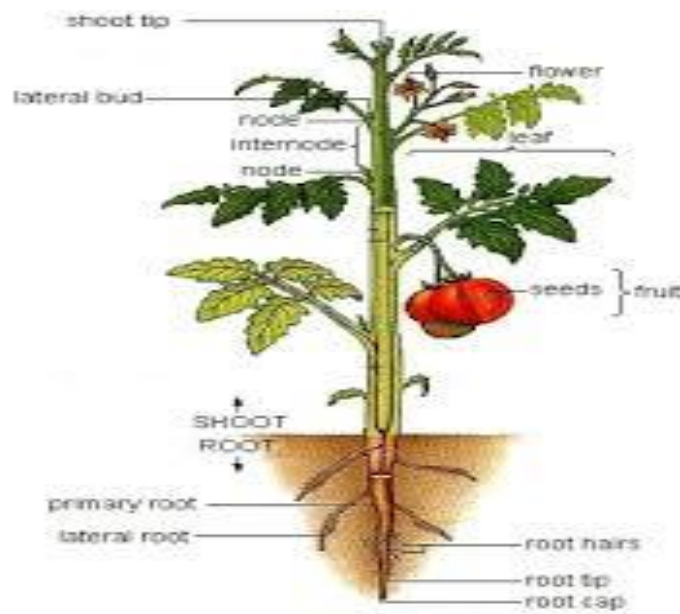
Your thorns are tricksters!

EXPLORE:

Find a picture of a Monkey tree (the plant).

What biome would it most likely live in
and why?

Parts of a Plant



How can you compare the above Plant parts with the parts of a Tree?

Inspiration from a Tree....

“Advice from a Tree”

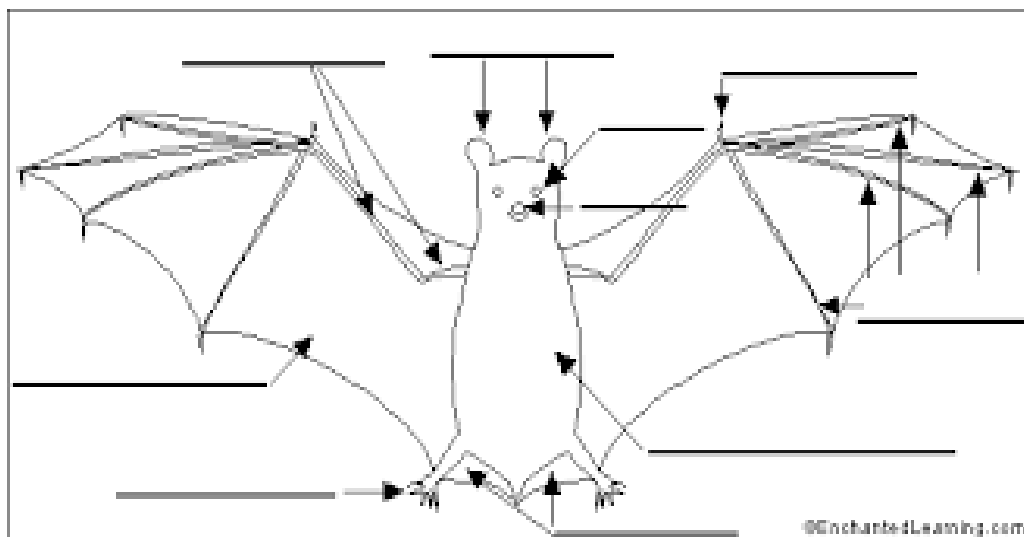
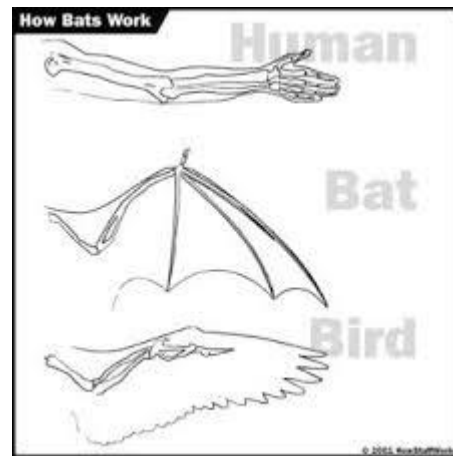
By Ilan Shamir

- Stand tall and proud
- Go out on a limb
- Remember your roots
- Drink plenty of water
- Be content with your natural beauty
 - Enjoy the view

Food for thought: How are people like trees? What are YOUR ideas?

Compare and discuss

The Parts of a Bat.



Ecology Weblibliography and References.

<http://www.differencebetween.com/difference-between-biome-and-vs-ecosystem/>

For fun and learning, schedule a visit to a local park, botanical gardens, river walk, state or national park.

National Park Service

1849 C Street NW
Washington, DC 20240
Phone
(202) 208-3818

<http://www.nps.gov/index.htm>

www.missriver.org

www.ricwma.org

www.ourmississippi.org

<http://www.asiancarp.net/solutions-for-asian-carp.php>

<http://www.fws.gov/pollinators/programs/endangered.html>

<http://www.ucmp.berkeley.edu/glossary/gloss5/biome/>

<https://www.facebook.com/ProtectingEndangeredSpecies>

www.qcgardens.com

https://www.facebook.com/discovertheforest?hc_location=timeline

<http://archive.news.softpedia.com/news/10-Facts-Myths-and-Records-of-Frogs-and-Toads-75593.shtml>

<http://www.nationalforests.org/blog/what-are-the-differences-between-national-parks-and-national-forests#>

www.danact3.com

Biography.

DANIEL FERGUSON HAUGHEY--

Dan Haughey (hoy), Teaching-Artist, Member, Illinois Education Association and Illinois Theatre Association (ITA). Former High School Theatre/English Instructor. Credentialed in Speech & Theatre Arts.

Dan has a BA in Theatre Arts and a minor in English from Eastern Kentucky University, and an MFA in Theatre from Southern Illinois University at Carbondale, with an emphasis in playwriting and play production. He also attended the Florida State University-Asolo Conservatory for Professional Actor Training. Dan is an Actor, Singer, Director, Playwright and Educator. He has taught for 25 years, thirteen of those at Black Hawk College (BHC) in Moline, Illinois, where he headed the theatre program, served as Cultural Events Chair, and instructed speech and theatre arts classes. Also he served two years on the BHC Faculty Senate and in 2010 culminated his full-time tenure at BHC with the distinction of Professor Emeritus. He has six years' experience as a professional on stage, in TV, and film and is a former member of Actors' Equity Association (AEA) and currently the Screen Actors' Guild (SAG). In addition to his performance resume that features a long list of the more conventional plays and musicals, Dan has toured his one-person show on Ulysses S. Grant, *MR. U. S. GRANT*, to schools, museums, national parks and

service clubs in eight different states since 1981. Dan has served as a board member for regional Arts councils, state theatre associations in Tennessee and New Mexico, and on the Illinois Theatre Association Board for over five years, primarily as a University/College Co-Chair. In 2004 he served as ITA Convention Chair, and in 2005-07 represented ITA as a member of the Illinois Arts Alliance/Foundation, Arts Education Committee, while serving as a past ITA President. He has served as a member of the Association for Theatre in Higher Education. In 2013-14, he was commissioned as a "Road Scholar" by the Illinois Humanities Council for his Avant Garde one-person show entitled, *EA POE: Edgar Alan Poe's Imagination!* Mr. Haughey has also taught children's theatre classes and high school theatre. Dan is a native of Ohio.

Dan's environmental background includes serving as an arboretum caretaker as an extension of his high school biology class and working on farms while growing up in Ohio. His father introduced him to camping, boating and fishing during his elementary school years. To fulfill one of his liberal arts requirements in college, Dan studied Plant Science, and he developed lawn maintenance and gardening skills during the summers. During 2013-14, Mr. Haughey served for four seasons as Director of Operations and Exhibits for the Quad City Botanical Center in Rock Island, Illinois and continues to volunteer there on the Railroad Garden Advisory Committee. He is a member of the Illinois Education Association and the National Education Association.

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