

Whale Fall: An Ecosystem in the Deep Blue Sea

What is an ecosystem?

An ecosystem is a biological community of interacting organisms and their physical environment. (Oxford Languages online dictionary)

An ecosystem is a geographic area where plants, animals, and other organisms, as well as weather and landscape, work together to form a bubble of life. (National Geographic Society)

An ecosystem is the complex of living organisms, their physical environment, and all their interrelationships in a particular unit of space. They are linked by the flow of energy and the cycling of nutrients through the ecosystem. (britannica.com)

Whale Fall

The ecosystem of a whale fall consists of the whale's carcass and all the organisms that feed on it or attach to it. It also includes the ocean water and the ocean floor around the whale's dead body.

From the book *Whale Fall Cafe* can you name five members of a whale fall ecosystem?

Which one would you like to know more about?

What would you like to know about the creature you chose?

Where might you look to find more information?

“Tree Fall”

A fallen tree in the forest is also an ecosystem. If possible, go out into the woods and find a fallen tree or a decomposing branch. Or look closely at the image on the next page and imagine it on the forest floor. Record your findings.



What do you see on the tree or branch? Is there any bark still on the wood?

How many different types of plants are growing on your “tree fall”?

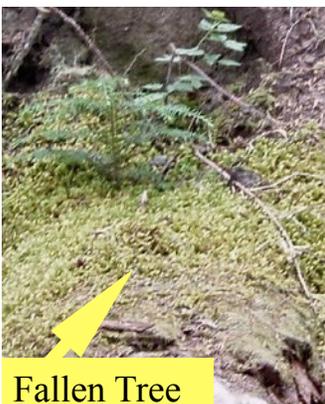
Nutrients from the decaying wood help other plants to germinate and grow. What plants are growing on the forest floor around the “tree fall”?

What invisible organisms do you think are living on your “tree fall”?

Describe any insects or evidence of insects that you see. (Evidence might include burrow trails in the wood, insect casings, pupae, webs, egg masses, etc)

Look at the ground around the tree. Do you see any foot prints? Whose are they?

How might larger animals use a “tree fall”? Which ones might be found at a “tree fall” in your woods?



Fallen Tree

How old do you think your “tree fall” is? Did it fall recently or long ago? What clues make you think this? What do you think it will look like in 100 or 500 years?

Some “tree falls” become nurseries for baby trees in the forest. They are called nurse logs. Tree saplings grow in the decomposing wood of a nurse log.

Write a short story about your “tree fall”. You might include some of the ideas below:

- how the tree or branch fell
- who found it first
- what plants grow on it
- what insects live in it
- what animals hide in it
- what animals find food in it
- what the "tree fall" will look like in 100 years

Describe how a “tree fall” is similar to a whale fall. How is it different?

What other ecosystems are you familiar with? Describe one below.