

INFORMATION GUIDE

PAGE BY PAGE NOTES:

- Title page Have the children look at the picture and identify the animals. In addition to those mentioned in the text on page 5, there are the following birds; a great blue heron, two loons and an owl, plus a snake (crawling out of the rocks on the beach).
- Page 6 Baby animals, like children, are curious and like to play. This is how they learn about their world and develop physical strength and co-ordination. Wolves investigate things by smell and their sense of smell is much greater than ours.
- Page 8 Adult wolves, like humans, take care of their young and respond to their cries of distress. Not all animals do this.
- Page 12 Before the effects of the loss of the wolf family can be felt, there must be a passage of time for events to develop.
- Page 14 The significance of this first winter being a mild one will become apparent later.
- Page 17 The first effects of the loss of the wolf family are now starting to be felt.
- Pages 18 & 20 In times of food scarcity, animals have smaller litter sizes. "Rabbits" is being used here as a generic term, since the animals depicted are snowshoe or varying hares. They have brown fur in summer and white fur in winter, for camouflage.



Page 22

You may wish to discuss differences in feeding behaviour and habits of animals. Only the squirrels make winter stores. This may be related to the fact that squirrels spend most of the winter sleeping. (They aren't true hibernators, though, like bears, since they wake and come out during milder spells.) Since they are not out gathering food through the winter, they must stock up beforehand. Different animals employ different survival strategies, and most are not able to switch.

Page 24

Only the owls, being able to fly, can do something about the food scarcity.

Wolves are territorial animals. Each family stakes out its territory by urinating on the boundaries of their property, much like a dog on the fire hydrant. The island wolves would have difficulty making a home for themselves on the mainland because other wolf families would already have established territories there.



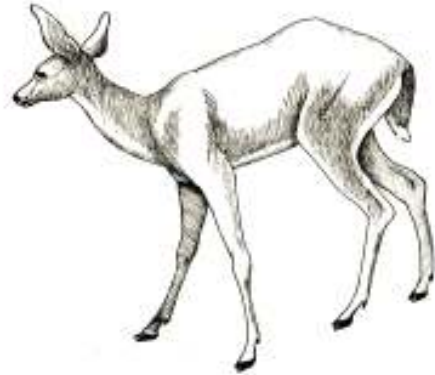
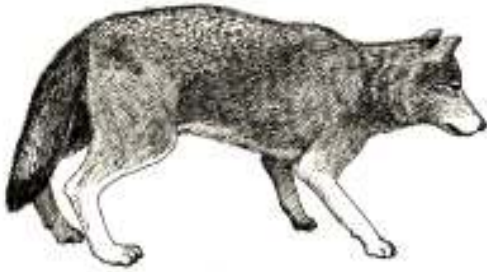
Page 27

In times of food scarcity, deer will actually kill trees by eating the bark. They also browse on sapling trees. When deer populations are not kept in check this may eventually result in deforestation of large areas.

Page 28

Isle Royale in Lake Superior suffered at one time from the effects of an increased moose population. There were no wolves on the island until, during a severe winter, wolves crossed over on the ice. They eventually brought the moose population under control.

Wolves are not normally fast enough to catch healthy deer. They usually catch only very young or infirm animals, so they not only keep the deer populations in check, but they also keep them healthy by killing off the unfit.



DISCUSSION TOPICS AND ACTIVITIES:

1) REALITY VERSUS FANTASY

Questions like: “What is different about this story compared with other animal stories? Do the animals speak? Do they wear clothes?” bring out the essential difference between this story and the animal fable. These animals are real; they represent themselves and are not stand-ins for human characters. A comparison between animals in cartoons versus nature films will help to bring home this point.

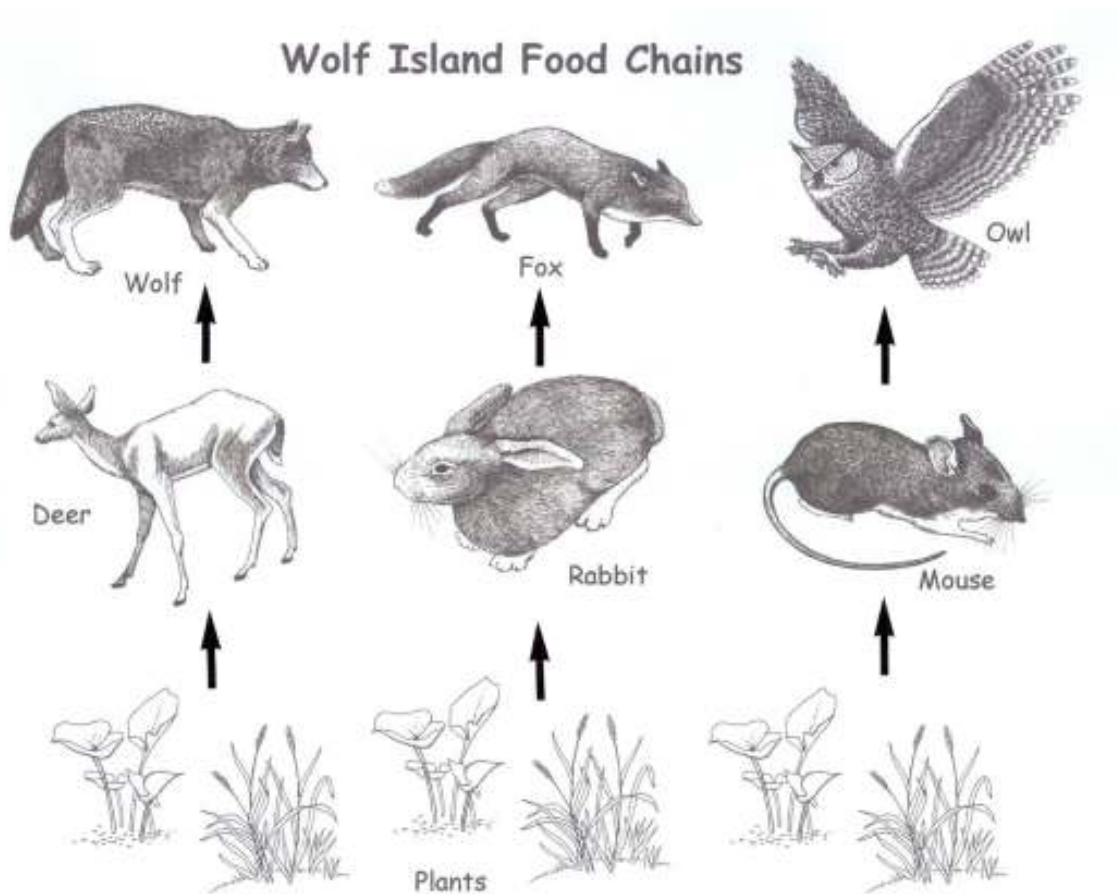
From here there is a natural progression to: “Do you think this really happened? Why/why not? Do you think it could happen?” The answer is both yes and no. The raft didn’t actually happen, but there are many places where wolves have been exterminated by hunters, which resulted in deer population explosions. For example, in the early part of this century, wolves were exterminated from the Kaibab Plateau Reserve in Arizona. Over a period of 17 years, deer populations skyrocketed from 4,000 to 100,000, causing over-grazing of vegetation. In the severe winter of 1925-26, sixty thousand deer died of starvation.

2) VALUE JUDGEMENTS

The big bad wolf theme here has been turned upside-down. Ask the children if they think the wolves are good or bad. Are the deer are good or bad? What about the other animals? Is it really appropriate to make such value judgments? The real villain of the plot could be said to be the raft, a man-made object. Discuss the impact of people on the environment.

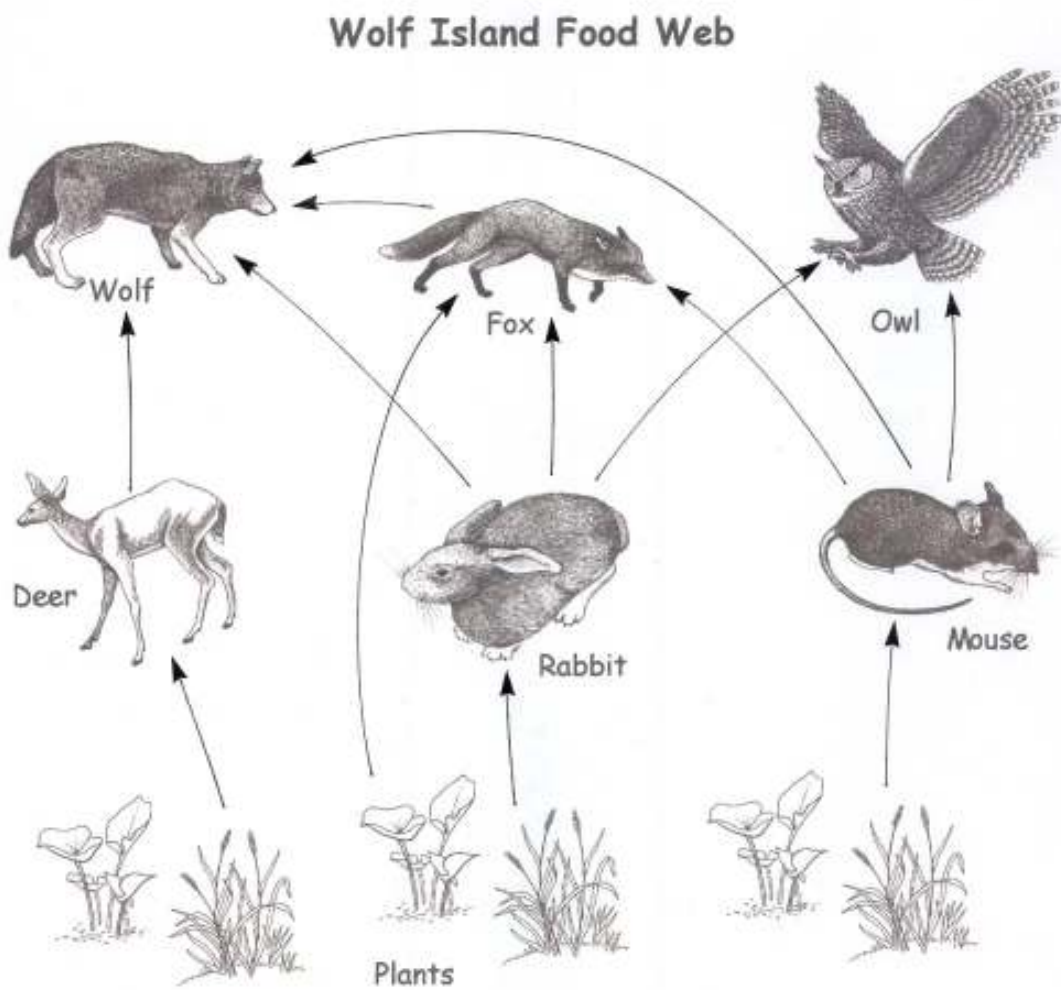
3) FOOD CHAINS AND FOOD WEBS

There are three food chains described in *Wolf Island*. Ask the children to identify who eats who in the story and have them draw the food chains. Their drawing should look like the illustration below. It is customary to depict the plants at the bottom, plant-eating animals (herbivores) in the middle and meat eaters (carnivores) at the top, with the arrows going in the direction of energy transfer. Plants capture energy from sunlight and animals capture that energy from eating plants or other animals, so the arrows go from plants to herbivores and from herbivores to carnivores.



The food relationships of *Wolf Island* are actually far more complicated than depicted above because, for example, plants are here all lumped together as one item, when in fact they compose many different species and dietary items, such as leaves, seeds, nuts, berries, twigs. Also most animals have varied diets. Ask the children what else those animals might eat besides what's indicated by the food chains.

ANSWER: Wolves eat deer, rabbits, mice and foxes. Foxes eat rabbits, mice and plants. The horned owl depicted in *Wolf Island* eats mice and rabbits. Adding those arrows gives you a simple food web, like the one shown below.

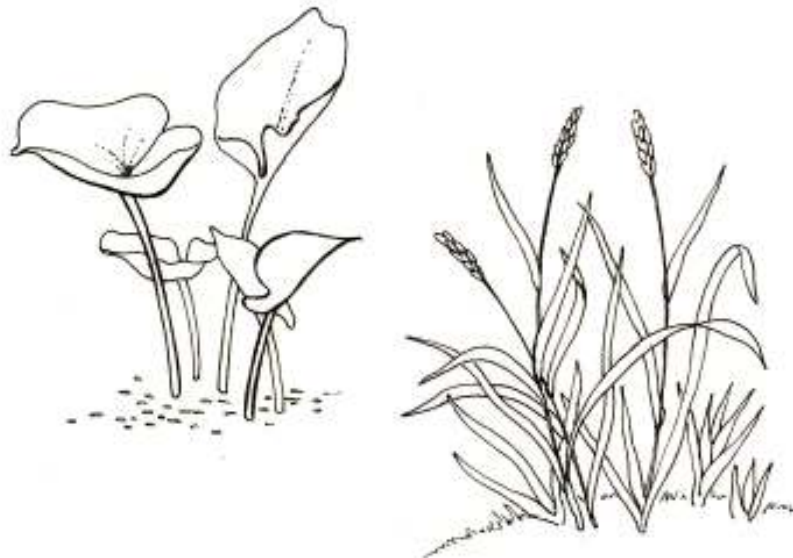


4) INTERDEPENDENCE

Have the children watch a nature video that is set in one place and deals with a variety of animals. Get them to name as many animals as they can and, if possible, describe what each animal eats and what eats that animal. Develop the idea that *Wolf Island* is not unique; all natural systems are interdependent. You may be able to find pictures of food webs in nature books, nature magazines or on posters, to further reinforce this idea. A trip to your local natural history museum could further enhance this project, especially where dioramas of natural habitats are displayed.

There are many other ways in which animals and plants are interdependent, besides food. For example, plants depend on animals (insects, birds or bats) for pollination. Trees provide not only food but shelter for many animals, and animals that excavate burrows may likewise create shelter for species besides themselves. You may find other such examples to bring into your discussions.

You may wish to develop an analogy between animal communities and human communities. The role of each species can be likened to different jobs people do in the human community. Some animals/ jobs are more essential to the immediate well-being of the community than others. Lack of doctors or garbage collectors, for example would be felt more quickly than lack of artists or research scientists yet all of these people contribute in important ways to the community. Similarly, some animals, known as keystone species, are more critical to the community than others. The wolves are the keystone species in *Wolf Island*.



5) POPULATION CONTROL

Many children wonder what keeps the wolf population in check, once the wolf family is back on the island. While the availability of food species does limit population growth in carnivores, many have additional behavioural checks which keep their populations more or less constant. Wolves have two behavioural mechanisms that keep their numbers in check. The first of these, territorial behaviour, ensures that there is only one family unit within a given area. The second mechanism is that breeding is confined to the dominant pair in each family unit, thereby ensuring that the size of the family remains more or less constant. The non-breeding animals act as a reservoir from which the dominant pair is replaced when they can no longer maintain their dominance. Non-breeding animals also play a vital role in the hunt, thereby keeping the family unit healthy.

We humans would do well to emulate wolves in the practice of birth control methods, (whether through abstinence or the use of contraceptives) since the alternative to voluntary control is catastrophic control from outside, such as we see with the deer population in the absence of predators. Epidemic disease, famine, natural catastrophes and wars are all forms of catastrophic population control.



Glossary of terms

Plants: living things that grow by capturing the energy of sunlight, using the green pigment, chlorophyll.

Animals: living things that grow by eating other living things.

Herbivore: an animal that eats plants.

Carnivore: an animal that eats other animals.

Omnivore: an animal that eats both plants and animals.

Prey: an animal that is eaten by a predator.

Predator: an animal that eats a prey animal.

Species: a group of living things that are normally able to breed only amongst themselves.