



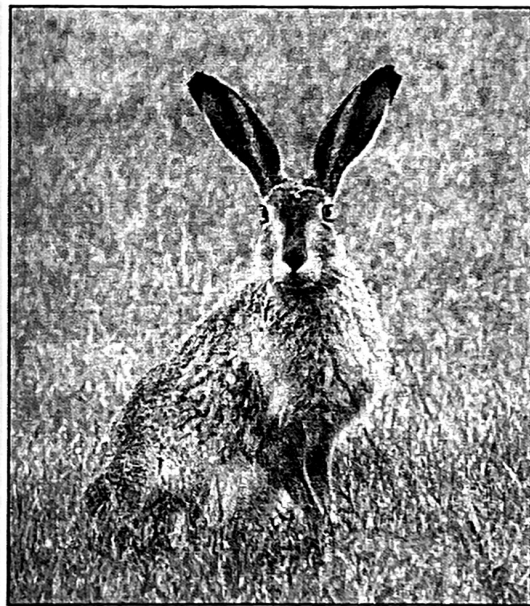
HOW MATTER MOVES THROUGH ECOSYSTEMS

Did you know that the water you're drinking may have passed through a dinosaur millions of years ago? That's because water never disappears. It simply cycles through animals and the water cycle over and over again. The same is true for all matter and food.

In every ecosystem, matter passes from one organism or purpose to the next. The food chain is a big part of it. In the food chain, each organism uses the nutrients to power their bodies and grow. Then, in one way or another, the nutrients and matter in that organism's body get passed on to another organism.

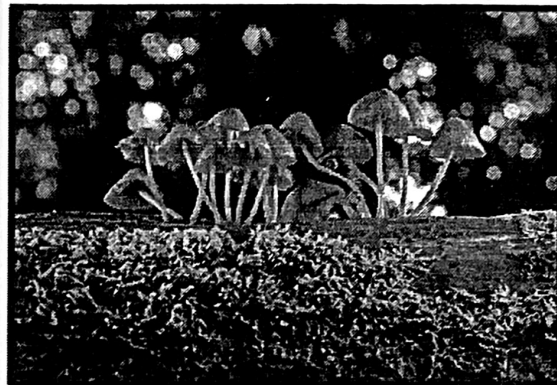
Common Transfers of Matter

Imagine a rabbit that lives in a forest near a farm. Every day, the bunny goes out to eat grass at the edge of the forest. Sometimes he ventures into the farmer's fields and eats the lettuce, spinach, and carrots that grow there. The rabbit uses the nutrients in the plants to grow and hop around. Eventually the rabbit gets sick and dies in its underground den.



While some people may keep rabbits as pets, wild rabbits are a very important part of their ecosystem. Do you know why?

After it dies, decomposers like worms, flies, and other insects come to eat the dead body of the rabbit. These organisms use the nutrients in the dead rabbit for their own needs. When the beetles, flies, and worms move away from the dead rabbit, free range chickens in a nearby field notice them. They quickly snatch up the grubs and beetles as a tasty snack. Now, the nutrients in the decomposers help the chickens grow and move around.



Mushrooms, also known as fungi, are another type of decomposer. There are lots of different types of mushrooms and some are poisonous!

Finally, the farmer keeps a few chickens for himself and then sells the rest of the chickens at the market, where other people buy them as food. Through this cycle, some of the nutrients and matter from the plants that the rabbit ate traveled all the way to the people who ate the chicken.

Each Member Has a Job

Each member of an ecosystem falls into one of three categories. The categories are producers, consumers, and decomposers. Producers are the organisms that make their own food. Mainly, this includes plants. Consumers are the organisms that eat producers or other consumers. Finally, decomposers eat dead producers and consumers. They turn the dead organisms into dirt.

Each of the members of an ecosystem play an important role in helping to transfer matter between the other members. The delicate transfer of nutrients and matter between organisms is what keeps each ecosystem alive.