**Nature Hits Back**

In nature every living organism has its place in the order of things. The materials and chemicals that make up living organisms return, in due course, to the soil or the air when the organisms die. There is a special group of plants and animals which break down, or de­compose, dead bodies. We call this natural waste biodegradable, and this means that it can be broken down by living organisms. The natural decomposers range from microscopic bacteria and fungi to insects and large scavengers, such as the hyena. All of these carry out the task of removing the remains of dead plants and animals. Without them we would be surrounded by the remains of dead matter.

As human civilization developed, the natural balance was upset. The first humans began to change the environment with tools and the use of fire. Forests were chopped down, and the land cleared for agriculture. Settlements were created, and this led to the build­ing-up of piles of material which had been discarded as rubbish. Some of this rubbish, broken pots and tools, could not be decom­posed, and so formed the very first type of pollution. In the broadest sense, anything which cannot be broken down by natural means can be called pollution.

When the world population was small, the effect of a few rubbish tips was not very serious. As large towns and cities came into being, the growing amount of rubbish and sewage became a health hazard. Rotting and uneaten food attracted rats and this led to dis­ease. In the Middle Ages such pollution was very dangerous. Millions of people died from bubonic plague, typhoid and cholera, as these diseases spread through many countries.

As mankind became more industrial, the problems of pollution increased. The role of industry is to convert raw materials and chemicals into the goods which society demands, for example, plastics, paper and metal goods. In this process, factories produce waste, much of which is not biodegradable. Many of these by-products are fairly harmless in small quantities, but are very dangerous when present in large amounts. Over the years, materials like these have been washed away into rivers where they upset the balance of life. Manufacturers did not worry about this until it began to harm the environment.

One of the first signs that we were poisoning our own world came with an insecticide called DDT. It was used to kill mosqui­toes, and thus helped in reducing malaria. However, once in the soil, DDT could not be broken down by decomposers. In time the chemical passed up the various food chains from insects to fish, fish to birds, and eventually even began to poison humans.

Today, pollution is all around us. One of the most worrying forms of pollution at the present time is the so-called acid rain. This is caused by sulphur compounds in smoke dissolving in rain­water to form weak acids. As the polluted rain fills rivers and lakes, the acidity upsets the natural balance. In parts of eastern North America, for example, there are lakes which have lost many of the plants and animals which once lived there. The acid rain also kills off plants on land and causes trees to lose their leaves.

Modern fertilizers seemed a good idea at first, since they helped the farmers to produce more food. As the fertilizers washed into rivers and ponds, they produced rich growths of algae and other plants. When these multiplied, they began to use up all the oxygen in the water and very soon the fish died.

This is typical of many pollution problems. We only become aware of the pollution when the damage has been done. We ap­pear to be walking a tightrope, and if we continue to disturb the balance of nature we will increasingly become victims of our own products.

(From “Patterns of Life on Earth”)

**Exercises**

**1. Study the text and explain the meaning of the following words and phrases:**

Dead matter, rubbish, sewage, waste, by-products, insecticide, food chains, fertilizers, to walk a tightrope.

**2. Find in the text the synonyms to the following:**

Naturally, properly; to cut down; to result in; to bring about; to reject, to throw away; to turn into.

**3. Give the English for:**

Должным образом, разлагаться, биоразлагаемый, варьироваться, падальщик, выполнять задание, останки, образование, угроза здоровью, в больших количествах, нарушать естественное равновесие, растворяться.

**4. Give the singular form of the following words, transcribe them.**

Bacteria, fungi, algae.

**5. Check your reading.**

1. What happens to living organisms when they die?
2. What are the natural decomposers?
3. How did man first pollute his environment?
4. How do we define the word pollution today?
5. What was pollution in the Middle Ages and how did it affect people?
6. In what ways did industrialization increase pollution?
7. Why are insecticides like DDT such a great danger?
8. What are the effects of today's two most dangerous forms of pollution?
9. What has been man's general attitude to the pollution going on around him?

**6. Study the spider-gram given below. As you see many environmental threats are related, one problem leads to some others.**

**Work in pairs. Speak about one particular kind of pollution. Use books, journals, TV pragrammes, the Internet. Base your answer on the following questions:**

1. What is the essence of the problem?
2. What are the possible causes?
3. What is done to solve the problem?
4. What else can be done?