



# Conservation Education

AUTUMN 2001

ISSUE ONE

Published by the  
Young People's Trust for the Environment  
8 Leapale Road, Guildford, Surrey, GU1 4JX  
Tel: 01483 539600  
email: [info@yptenc.org.uk](mailto:info@yptenc.org.uk)  
Web site: [www.yptenc.org.uk](http://www.yptenc.org.uk)  
ISSN 0262-2203

Founder: Cyril Littlewood  
Director: Peter Littlewood

Sponsored by



## Contents

- 2 Protecting our Planet – Doing your Bit!
- 3 Farming and Food
- 4 Energy Matters
- 6 Vanishing Habitats & Wildlife
- 7 Help your local Wildlife
- 7 Take More Action!
- 8 What a Waste
- 8 Do your Bit!

Welcome to the first new-look issue of Conservation Education, sponsored by Barclaycard as part of the LivingLand programme. LivingLand is Barclaycard's three-year, £3 million initiative to improve awareness of the environment working in conjunction with the Young People's Trust for the Environment.

Our member schools receive a free copy of Conservation Education every term, but thanks to Barclaycard, we're now able to mail this free sample copy to every school in the UK. School membership of YPTE is free, and all you have to do to join is supply us with your name and contact details. You can do so by calling us on **01483 539600**, emailing us **info@yptenc.org.uk** or by visiting our web site at **www.yptenc.org.uk**

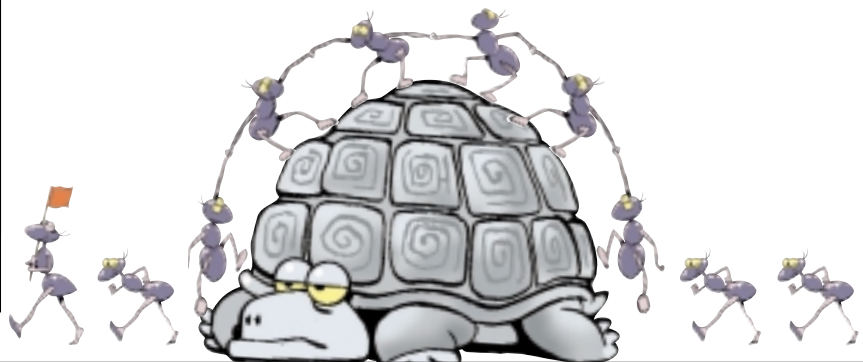
Cyril Littlewood writes...

With the human population of our planet increasing at the rate of around 93 million people each year it is hardly surprising that we are faced

with so many environmental problems. As the ever-increasing tide of humans floods into the world we demand more and more land for development and the remaining wild places on the earth become fewer and smaller.

The wanton destruction of habitats such as rainforests, wetlands and the very oceans themselves mean that many species of animals and plants are faced with extinction, some of them already on the very brink of oblivion.

Across the world the once teeming populations of wild animals are fast disappearing. Through our carelessness and greed, people are altering our planet for the worse, but with the help of teachers and the enthusiasm of young people perhaps we can change things before it is too late.





# Protecting our Planet – Doing your Bit!

Planet Earth has been home to human beings for two million years, but it wasn't until around two hundred years ago that we began to make a mess of it!

Many people are worried that we are not taking care of our world.

The problems of our environment seem endless ... polluting gases from factory chimneys and car exhaust pipes ... oil polluting the oceans ... the destruction of rain forests ... thousands of species of animals threatened with extinction ... climate change ... to name but a few!

Unless we can find a way to solve the problems, our Earth will suffer even more in the future.

As our human population increases and our lifestyles change and improve, we must keep our planet in good condition, so that future generations can use the same natural

resources that we have. Natural resources like fresh air, clean freshwater, healthy farmland, wildlife, forests, unpolluted oceans and a stable climate.

Man has made a lot of mistakes in the past and to safeguard our future we have to change our ways. We must learn to live a sustainable lifestyle – that is, happily and healthily in harmony with nature.

The list of environmental problems sounds so depressing – but we mustn't despair! There are lots of



things that every one of us, whatever age we are, can do to help. The first step is knowing what the problems are – and the next is doing something about them. We cannot sit back and leave the problem-solving to scientists and politicians – we all have a responsibility for our environment.

In the following pages you will find brief explanations of the major problems facing the planet and some ideas to help you **Take Action!**



Serious air pollution problems are produced by the burning of fossil fuels.

# Farming and Food

For many centuries traditional farming methods were used successfully to produce food. However, a growing human population meant an increased demand for more and cheaper food. Intensive farming has been developed to meet this demand – but the cost to the environment has been great.



Manure is used in traditional methods and it keeps the soil healthy by adding bulk and nutrients.

Intensive agriculture involves the use of powdery chemical fertilisers to increase the yield of a crop but they lead to soil erosion and pollution of freshwater.

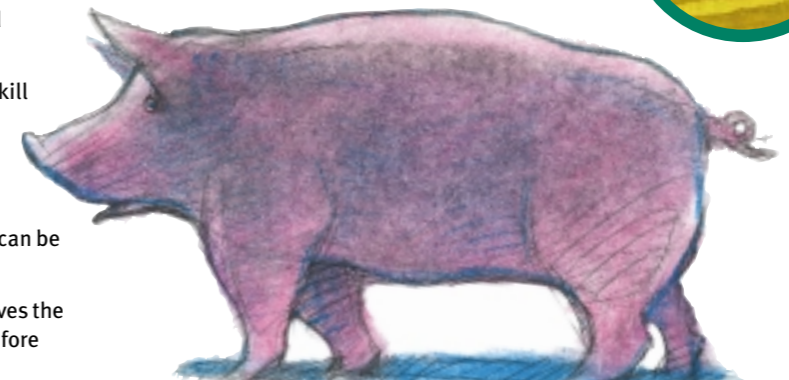
Chemicals are also used to kill insect pests and weeds. These pesticides and herbicides can also kill harmless wildlife. It is even thought that some of them can be harmful to human health.

Intensive farming also involves the use of fossil fuels, and therefore

pollution, as food is transported around the world. People in Third World countries working on food plantations are often paid low wages and exposed to pesticides.

Public demand for cheap meat and eggs has resulted in animal welfare concerns. Intensive methods mean that animals

like chickens and pigs suffer as they are crowded together and transported hundreds of miles to be slaughtered.



## TAKE ACTION

Support organic farming: organic farmers produce vegetables, fruit, meat and eggs without the use of chemicals. They use natural fertilisers and control pests by encouraging natural predators and using 'crop rotation' (changing the crops grown on the same piece of land each year).

They cannot grow as much to the acre as intensive farmers, but their methods are much better for the soil and wildlife.

The produce is also safer for us to eat. Animals on organic farms are free-range and fed an organically-grown diet. Organic farming cannot yet supply all the world's food needs, but more and

more farms are converting to organic methods to meet public demand.



Buy organic products whenever possible.

There is a large range of organically produced vegetables, fruit, meat and eggs and groceries available in the supermarkets nowadays. 18% of agricultural chemicals used world-wide are sprayed on to land cultivated for cotton, so it's also a good idea to buy cotton wool which has been produced from organically-grown cotton crops.



Whenever possible, buy your fresh foods from local producers, so reducing pollution resulting from

transportation. Farmers' Markets are now held in many places, often on a Sunday, and are excellent places for buying fresh produce from your particular area.



Help the poorest people in Third World countries by buying Fairtrade goods, such as chocolate, coffee, tea and bananas. For example, buying fairly traded chocolate ensures that the cocoa growers in countries such as Ghana receive a fair price for their cocoa. Many Fairtrade goods are also organically-grown.



Have a go at growing your own organic fruit and vegetables!

# Energy Matters

80% of the energy used in the developed world comes from burning fossil fuels such as oil, coal, and natural gas. When fossil fuels are burned heat and greenhouse gases escape.

Most transport is dependent on oil as a source of energy, including cars, lorries and aeroplanes. Coal gas, petrol, paraffin and diesel oil are all made from crude oil and used as fuels; crude oil is sometimes used to make other things like soaps, cosmetics, plastics, and paints.

Another form of energy we use in our homes and industries is electricity, which is made in power stations. Heat is released by burning the fossil fuels, which turns water into steam, which drives turbines. We also use gas as a source of energy. Some natural gas is sent directly to us but most gas is converted into electricity.

All of these resources are finite and will eventually run out. Burning fossil fuels is also the main cause of the greenhouse gases that cause the earth to heat up in the process called global warming. Carbon dioxide (CO<sub>2</sub>) gas released into the atmosphere is one of the biggest contributors to global warming.

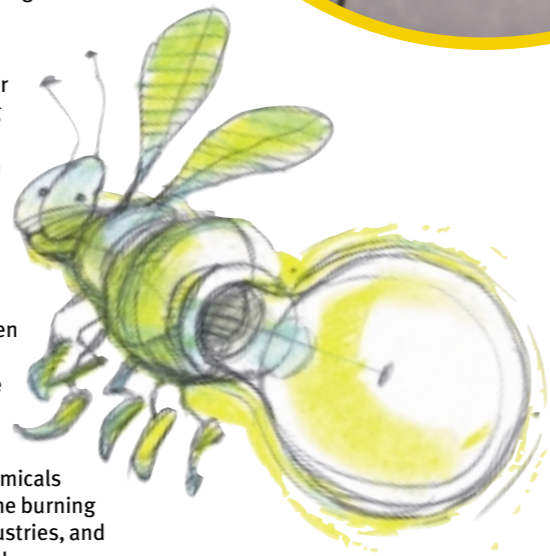
The effects of global warming are hardly out of the news these days – rising sea levels; the polar ice caps melting; temperature increases

leading to droughts, desertification, and loss of agricultural land; extreme weather conditions, floods and forest fires across the globe. We must accept our responsibility in creating and resolving this problem.

Energy usage causes pollution of the air. The air in some areas, mainly big cities, is so polluted that people are suffering from lung diseases. Petrol fumes and industrial smoke accounts for most of this pollution putting carbon dioxide, carbon monoxide, nitrogen oxide, soot, oil vapour, lead, and sulphur dioxide into the air around us.

Acid rain is created by the release of certain chemicals into the atmosphere by the burning of fuel from vehicles, industries, and power stations. Some of these gases react with the tiny droplets of water in clouds to form sulphuric acid and nitric acid. The rain from these clouds then falls as very weak acid (which can be as acidic as vinegar or lemon juice!) Acid rain travels great distances and has a serious effect on soil, trees, buildings and water, and threatens life of many creatures and plants.

The use of fossil fuels also leads to other pollution when oil spills and illegal dumping kill many sea mammals, birds and fish. Only 2% of oil pollution in the oceans is actually caused by tanker spills, 11% comes from natural seepage, 13% from the atmosphere, 24% from transport, and an incredible 50% is washed off roads into drains or buried in the soil – when it could be recycled!



Power stations are a main source of acid rain.

If the greenhouse effect continues to increase, our planet may suffer all sorts of environmental problems in the future.



## TAKE ACTION

We could use alternative energy – like nuclear power – but this is not cheap and there are risks involved. Also, reserves of uranium that it uses are also finite: there's only around 50 years worth left if we continue to use it at the present rate.

or

Renewable energy – these are the world's natural energy sources: wind, wave, tidal and solar power. Using them does not use them up and they have little environmental impact. The UK has some of the best wind, wave and tidal sites. We could even use solar cells, like the Big Brother house – to generate and store electricity.

- 1 Use solar powered water heating systems (they cost about £1,000 and can provide up to 60% of your hot water.
- 2 Save electricity: We waste more than half of what we produce – through badly insulated housing, inefficient machines, lights and cars. A lot could be done to save this energy; and save money too!
- 3 At home, at work, and at school, turn off electricity points like lights, and plug sockets when they are not in use, including stand-by TVs and VCRs.
- 4 Wash clothes on lower heat settings.
- 5 Turn your heating down just 1 degree.
- 6 Make sure that your home, school, shop is fully insulated.
- 7 Use long-life, low-energy light bulbs.
- 8 Walk/cycle: minimize the use of your household car to lessen the amount of petrol used.
- 9 Cycle, walk, use public transport, don't take unnecessary journeys, and car-share whenever you can.
- 10 Start a car-pool, this means a group of you share the car instead of all driving in separate cars.
- 11 Recycle: Recycling helps to reduce the demand for resources, particularly finite ones like oil (which most plastics are made from) and metals. An incredible 2/3 of all litter in the developed world is packaging. We can reduce the amount of waste we make in the first place which means less waste needs to be disposed of or recycled.
- 12 Buy products that use less packaging.
- 13 Use refill packs.
- 14 Carry home shopping in cardboard boxes instead of plastic bags.
- 15 Create an anti-waste club at schools and youth clubs to coordinate efforts to reduce the amount of waste made.
- 16 Re-use and repair – less energy is needed to repair/recycle something.
- 17 Recycle everything you can – bottles, cans, paper, clothes.
- 18 Recycle organic waste like vegetable and fruit peel on a compost heap.



# Vanishing Habitats and Wildlife

The needs of the ever-increasing human population have resulted in the destruction of the world's wild habitats. Forests are being cut down, rivers and oceans polluted with chemicals and refuse, hedgerows pulled up and ponds filled in. Habitat destruction is the main reason why thousands of animals and plants are threatened with extinction.

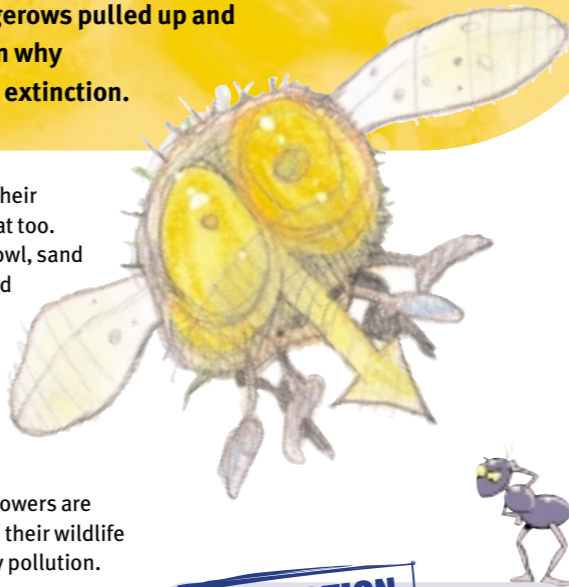
The greatest diversity of life is found in tropical rainforests, which means that they are home to more species of wildlife than in any other habitat.

They are also home to about 200 million tribal people. Rainforest plants are valuable as a source of medicine and food. They also regulate the world's climate and prevent soil erosion. Vast areas of these forests have been destroyed to provide timber and farmland. The living things are threatened and floods, caused by rivers filling with eroded soil, are causing hardship to the Third World countries.

Some species of animals have become endangered through hunting – the African elephant and tiger are well-known examples. A number of plants are threatened with extinction through people's enthusiasm for collecting.

Britain's habitats and their wildlife are under threat too. The red squirrel, barn owl, sand lizard and great-crested newt are just a few of the animals which have become endangered because of the destruction of their habitats.

Many species of wild flowers are threatened. Rivers and their wildlife have been damaged by pollution.



## TAKE ACTION

Be careful when shopping: think before you buy – the item you have chosen may have some connection with an endangered habitat or species!

- 1 Don't buy anything made out of tropical wood, such as mahogany and teak, unless it has a "good wood seal" marked on it, which means it came from a tree grown in a sustainable forest.
- 2 When on holiday, don't be tempted to buy souvenirs made of shells, coral, ivory or wild cat skins.
- 3 Eating a beefburger may be helping to destroy a rainforest! Although burgers in Britain are now mostly from European cattle, these cattle are often fed on soya bean and a lot of that comes from Brazil where large areas of forest have been destroyed to grow soya. When buying burgers, ask what the cattle were fed on – but if in doubt, opt for a veggie burger!



The nocturnal, fluffy-tailed common dormouse, is one of Britain's endangered woodland animals.

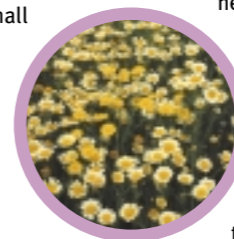
# Help your Local Wildlife



If you have a garden at home, you could transform it into a mini nature reserve for wildlife. This will help many species of animals and plants which are losing their wild habitats.

The same could be done in your school's grounds. Encourage your family and friends to give you a hand!

- Make a pond. Even a small pond will attract frogs and dragonflies etc. It will also provide water for birds and mammals.
- Make a wildflower meadow. Wildflower plants and seeds may be bought from garden suppliers and, if planted correctly, a colourful meadow will result, attracting birds and insects. There are also several cultivated garden plants which are rich in nectar and therefore useful to insects. In turn, the insects provide food for other animals.
- Provide logs and dead leaves for minibeasts, woodmice and shrews.



Animals need a place to shelter. A wildlife garden need not be an overgrown wilderness, but an over-neat garden will not be attractive to wildlife!

- Feed the birds and put up nest boxes. Many birds cannot find enough natural food, especially during the winter, and destruction of trees has destroyed many natural nesting sites.
- If your garden is large enough, plant one or more native trees such as oak, ash, birch and rowan. Native trees attract more wildlife than foreign species.
- Be an organic gardener. Avoid using chemical sprays

in the garden – some of these can be poisonous to wildlife. It's best to let the birds eat the cabbage-munching caterpillars, the hedgehogs and toads deal with the lettuce-loving slugs and the ladybirds dine on the rose-ravaging greenfly!



The hedgehog is a gardener's friend!

## More Action Ideas!

- Don't waste water – it's one of the world's precious resources.
- Be careful what you put down your drains. A cocktail of chemicals from washing powders, toilet cleaners, shampoos and other household cleaners can put such a strain on the sewage works that polluted water can end up in the rivers. Try using 'environment friendly' alternatives.
- If you see any pollution in streams or rivers, report your findings to your local Council's Environmental Health Officer.
- If you are really keen and you know other people who are concerned, why not set up an Action Group to campaign for changes in your area? Young people play an important part in persuading others to improve their local environment.
- You could set up or join a group and campaign for changes by running schemes which set a good example.

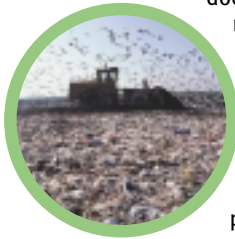
Projects could involve litter problems, recycling, growing vegetables and wildlife gardening. To gain support for any campaign, accurate information must be collected; surveys could be conducted and photographs taken. Remember that for many activities it is important to enlist some help from adults.

# What a Waste

Every year in the UK, we throw away over twenty million tonnes of household waste. That's about a tonne for every household.

Most of it ends up in landfill sites – huge holes in the ground into which rubbish is tipped – or is incinerated. The heat from incinerators can be used to create electricity, which is useful, but incinerators also produce many toxic chemicals, which go into the atmosphere.

Recycling not only reduces waste, it also saves energy.



It takes less energy to recycle many goods such as cans and glass than it does to create them from raw materials. Recycled paper is a good thing to use. For every tonne of paper that is recycled, fifteen trees are saved!

If you're not using recycled paper, try to use paper and buy furniture sourced from sustainably managed forests. For every tree harvested from these forests, at least two are planted, meaning that the resource is completely renewable.

So.....Get  
Going! Make a  
difference!  
Do your Bit!  
The Future of  
our Planet's  
Depending on it!

DEFRA (Department of the Environment, Food & Rural Affairs):  
[www.doingyourbit.org.uk](http://www.doingyourbit.org.uk)  
[www.useitagain.org.uk](http://www.useitagain.org.uk)

Channel 4:  
[www.planet.channel4.com](http://www.planet.channel4.com)

CREATE (Centre for Research, Education & Training in Energy):  
[www.funergy.org.uk](http://www.funergy.org.uk)

The Fairtrade Organisation:  
[www.fairtrade.org.uk](http://www.fairtrade.org.uk)

Eco-Schools:  
[www.eco-schools.org](http://www.eco-schools.org)

HDRA (Henry Doubleday Research Association) Organic Network for Schools:  
[www.schoolsorganic.net](http://www.schoolsorganic.net)

The Soil Association:  
[www.soilassociation.org](http://www.soilassociation.org)

...and useful books:

**Grow Organic Eat Organic** – by Lone Martin (b small publishing)

**Muck & Magic** – by Jo Readman (Henry Doubleday Research Association/Search Press)



## TAKE ACTION

1 Throwing things away after use is quite wasteful. Many can be used again (recycled). You can recycle paper, glass, aluminium, steel, clothes and some plastics.

2 Sort them into boxes at home rather than simply throwing them in the bin. When the boxes are full, you can take them to your nearest recycling centre – normally at a car park or supermarket.

3 Take old clothes that you don't want any more to your local charity shop.

4 Recycle kitchen scraps in a compost heap in your garden, any uncooked vegetable waste can be turned into compost. The compost can then be used to enrich the soil in your garden.

5 Try to buy foodstuffs with as little packaging around them as possible.

Many foods are packed in several layers of plastic, some of which are unnecessary.

6 Re-use carrier bags. Think of the number of carrier bags you get through when you're at the supermarket! They can all be used more than once – not only for shopping, but also as bin liners, but often they're just thrown away.

7 Ask whether your school could have a set of recycling bins.

8 See if the kitchen would be willing to set up a compost heap for any scraps.

9 Make sure you don't drop any litter. This is even worse than throwing rubbish in the bin. Not only is it messy, but it can be a hazard to animals.

Remember to 'reduce – re-use – recycle'!



In association with  
Young People's Trust for the Environment  
8 Leapale Road, Guildford, Surrey, GU1 4JX  
tel: 01483 539600 fax: 01483 301992  
email: [info@yptenc.org.uk](mailto:info@yptenc.org.uk)



Printed on paper sourced from sustainably managed forests