



# OUR FORESTS AND JUNGLES

**Forests and jungles touch our lives every day. They have done for millions of years, since the world's first peoples used them to get shelter, food, water, and firewood.**

Today, 300 million people still live in forests and over one billion people depend on them for their livelihood. Forests cover almost one third of our planet's land area and well over half of the species found on land live in forests.

There are many kinds of forest on our planet, but they all contain a delicate balance of plants, animals, fungi and bacteria. Forests provide us with many resources, including food, paper, building materials, chocolate, medicines, and even the air we breathe. Forests make rainfall and filter freshwater. Most importantly, they are the lungs of our planet, and soak up carbon dioxide and other greenhouse gases that cause climate change.

## WHAT'S HAPPENING TO FORESTS?

Forests are under threat. Every year 8.8 million hectares of natural forest are cut down – that's an area the size of a football field every second. Forests are being cleared for agriculture, often to grow food for animals such as pigs and poultry. In many parts of the world, illegal logging is leading to damage or loss of healthy forests. Many protected tree species are being over-harvested, and the wood is sold to be used for buildings and furniture. Around the world, wood is still used by more than a quarter of the world's people for cooking and heating – and the world population is growing.

**Forests are naturally resilient**, and areas cleared of tree cover can spring back to life if given a chance, even after huge forest fires. In fact, natural fires started by lightning may seem to be a terrible thing for forests, but actually often allows them to grow back stronger and to support a bigger variety of animals and plants than if the trees just kept growing. Some pine trees are adapted to frequent fires, and have cones that only open to release seeds in the heat of a fierce fire. The ash after a fire is filled with nutrients and perfect for new plants and trees to grow in the space left by the trees that have burned to the ground.

Vegetation recovering in conifer forest after a fierce forest fire in Kings Canyon National Forest, California, USA.



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Great Hornbills fly vast distances in search of fruit, and deposit seeds along the way. This spreading of seeds helps the forests of the Western Ghats in India thrive.

### FORESTS FOR THE FUTURE

We should all think carefully about how we use wood and the products made from it. It is best to use reused or recycled materials first and then if, we buy new, to ensure that the supply is from a responsibly managed source. One way to verify this is to choose products with an FSC label which shows that it comes from a well-managed forest where removal of trees for timber is done in a way that allows the forest and its inhabitants to continue to thrive for the future.

We also need to help forests recover by allowing areas that have lost tree cover to become forested again, especially where this connects fragmented pieces of forest into landscapes covered in trees. We know that forests are resilient and can recover if we let them. Doing this will ensure that amazing wildlife has a home, while we still have the benefit of wood and other forest products from well managed forests now and in the future.

### SEASONAL FORESTS

Forests located far from the equator experience extreme changes in temperature and length of daylight hours each year due to the tilting of the earth that takes them closer to, or further from, the sun. This means that the species living in these forests are used to dealing with change and can recover from difficult conditions or damage. In many places, including Western and Central Europe, East Asia and the Eastern United States, many forests are 'deciduous'. This means that the trees shed their leaves every year in the Autumn, so that they avoid damage caused by cold and snow. Other seasonal forests consist of mainly conifer trees, such as the pine forests of Eastern Russia. Conifer trees are evergreen trees that have scale or needle shaped leaves with a waxy coating that helps them cope with extremely cold or dry conditions. This allows them to have leaves all year round, though the oily coating to the leaves can mean that they can burn very quickly if there is a forest fire.

### FRAGMENTATION

Unfortunately, human activity can cause damage to forests from which they are less able to recover, and which can make life difficult for the wildlife that live there. When forests are completely cleared to make space for farmland, the amount of forest is decreased and what remains may become split into smaller separate pieces. These smaller fragments of forest may not be able to support wildlife that a large forest can. This splitting of forests into smaller areas is known as 'fragmentation', and is one of the biggest threats to forests globally. They are being cut into pieces by farms, but also by roads, rail tracks, pipelines and pylons.

Less than a quarter of the world's forests are part of large unbroken expanses of trees where large animals such as tigers and bears have enough space to hunt or forage for the food they need to survive. A single grizzly bear may need 1,000 square kilometres (385,000 square miles) to itself. These animals also spread seeds in their droppings, so they are an essential part of the forest ecology. Predators like the Siberian Tiger keep deer populations under control, which stops overgrazing from damaging the forest ecosystem. Fragmented forest cannot support these large animals.

Plantation forests (areas of land planted with trees specifically to provide timber) can be carefully managed so that less pressure is put on natural forests. Well managed plantations close to natural forest can protect and expand the habitat for wildlife, and brings many of the same benefits to the environment that natural forests do.

Boreal Forest in winter, Haines, Alaska, USA.



## JUNGLES

The forests with the most plentiful and diverse wildlife are the jungles near the equator (the imaginary line around the middle of the planet), where they do not experience the seasonal changes that are felt in the North and South due to the tilting of the earth on its axis. This rich biodiversity is a result of the constant warmth and wetness of tropical rainforests, where the trees are leafy all year round, there are no big changes in temperature due to seasons and nature is fully active all year round. Jungles have different levels – each providing habitat for different species. A small area of jungle can be home to a huge amount of wildlife, from the forest floor up to the thick canopy. In the Amazon rainforest, 2.5 sq km of jungle can be home to more than 50,000 insect species, and some types of tree may only be found in one small area where they have evolved.

The unchanging temperature and constant warmth of the jungle mean that some species are only used to those conditions, and are not able to cope if their habitat changes. This means that when human actions have an impact on a jungle it can cause serious problems for the wildlife living there. Lots of species in jungles have developed relationships that mean they depend on each other for their survival. This means that if one species is damaged it can also cause problems for other species in the same part of the jungle – or even in other areas.

### THE WORLD'S GREATEST RESOURCE?

All forests clean the air we breathe, breathing in carbon dioxide and releasing oxygen. This process, called 'photosynthesis', happens faster in the wet heart of tropical rainforests than anywhere else on our planet. Jungles also regulate our climate. Like giant sponges, they soak up water through their roots and return it to the atmosphere through their leaves. This moisture is carried in the air to other parts of the world and falls as rain, so the jungle actually ensures that other parts of the planet have the water that is needed for life to survive. Jungles give us precious resources. Much of the food we eat – coffee, avocados, bananas, lemons, oranges, cacao beans to make chocolate, cashews, peanuts, pineapples and papayas were first found in the jungle and are now farmed for our enjoyment. Many medicines that we use today were discovered by studying chemicals produced by plants and trees growing in jungles. Scientists believe there are many more discoveries to be made that could help us stay healthy in the future.

### DISAPPEARING JUNGLES

Jungles are perhaps the most endangered habitats on earth. In the Amazon basin we are currently losing an area of rainforest around the size of 3 football pitches every minute because it is being destroyed by humans for timber,



Forests and jungles play an important role cleaning, storing and distributing freshwater. Over three quarters of the freshwater humans can access comes from forests, and air that passes over large forest areas produces much more rainfall than air that has passed over little vegetation.

farmland, and to clear the way for roads. Destroying the jungle harms us all. People lose their homes, security and income. Animal species face extinction, and the planet becomes more vulnerable to climate change.

### SAVING THE JUNGLE

Local communities can be supported and empowered to allow them to protect the jungle and make a living without destroying jungle for farmland or timber. People who have used these jungles for generations can continue to do so, while ensuring that the amazing wildlife that shares the jungle – and future generations of people – can do so too.

Some crops can be grown in the jungle without removing the trees. By planting lots of different crops under the canopy (fruit, nuts, coffee etc) an area of jungle can provide food and income for local communities without any areas ever being cut down completely. This creates a more natural ecosystem than on a farm growing a single crop, so fertilisers and pesticides are not needed. There are also techniques that can enable some harvesting of trees for timber and other resources from the jungle in a way that allows it to stay healthy and recover, and all the different crops together provide enough to support farmers. This is called Agroforestry.

We depend on jungles but we risk losing them if we don't act now. We can use the jungle in a way that does not destroy it for future generations. We can all make sure that we live in a way that protects our precious planet. One way is by making sure that we ensure that products we buy are not produced at the expense of the jungle.



# OUR FRESHWATER

All life on earth depends on freshwater, yet less than 3 per cent of the water on our planet is fresh. The rest of the water on our planet is salty seawater in the oceans.

Almost all freshwater is locked up in ice caps or glaciers or buried deep underground. We are able to use less than one per cent of freshwater as it flows through rivers and streams, ponds, lakes and wetlands.

Freshwater is our planet's most precious resource. We drink it to stay alive, use it to stay clean and water the crops that we eat. It is used in producing the cotton clothes we wear and, through hydropower and cooling water in thermal power stations, it produces the electricity that lights our homes.

Freshwater is essential for nature too. Freshwater habitats are home to more than 10 per cent of all known animals and almost half of all known fish species. Freshwater ecosystems help to regulate the temperature of the land and sea. They allow wildlife to travel vast distances through different kinds of landscape to complete their life cycles, and act as conveyor belts transporting nutrients that make soil good for growing food. The flow of clean freshwater through rivers, lakes and wetlands is very important to the survival of aquatic life. It needs to be **clean**, and it needs to be able to **flow** from place to place, rising and falling with the seasons.

## WHAT'S THE PROBLEM?

Populations of freshwater species are falling faster than wildlife in any other type of habitat on our planet, and this means that many of the things we need from rivers, lakes and wetlands are also in danger of being lost.

When rivers and rainfall do not provide enough water for our needs we change the natural flow to get it. Today we are using too much water, in too many places.

Florida Manatees leave coastal seas to swim up rivers in Winter to find warmer water and abundant freshwater plants to eat. Humans are now taking so much water from springs, and polluting others, that manatees are losing their winter homes.



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A male *Callipterus* cichlid in the African Lake Tanganyika collects empty shells to attract females, who need shells in which to breed.

In some cases we do this by pumping water up directly from rivers or from below the ground, and end up taking more than rainwater can replace. This means there is less and less water flowing downstream or underground until eventually it dries up. People and animals who depend on that water face great problems.

We have built dams that stop the natural flow of freshwater so that we can collect water where we need it for large cities or for farming, or so we can generate hydropower as the water is released through the dam. Hydropower produces almost one-fifth of the world's electricity, but dams can hurt river environments. They stop freshwater fish being able to migrate upstream from the sea to spawn. This is a major reason why more than a third of the world's freshwater fish species are vulnerable to extinction. The dorado catfish migrates from the Amazon's delta to the Andean foothills – a journey of more than 3000 miles.

It's not just dams. Concrete is often used to strengthen and raise river banks to keep rivers from flooding. This means that land close to the river can be used to build houses or as farmland, when it was previously a floodplain. This destroys floodplain wetlands which filter pollution from water and provide homes for wildlife and places for fish to spawn (lay their eggs). This attempt to control the flow often ends up causing more problems with flooding than it solves. The man-made banks cause the increased flow of water to speed up in the river channel instead of losing energy by spreading out when it overflows the banks. River levels downstream rise much higher, much faster. As a result, the banks often break and the result is much worse floods than would have happened otherwise.

### CREATING A WATER-SECURE FUTURE

We all share one planet and by thinking carefully, we can keep freshwater flowing. About 90 per cent of the water we use goes to water crops. But this can be done more efficiently. Used wisely, drip irrigation and other



Sandhill cranes stop on their annual migration at the Platte River in Nebraska, North America. Humans have dammed the river, and taken so much of its water, that there is little space left for the cranes. Conservationists now manage the river's flow to create the sandbanks the cranes need.

technologies mean that far less water is used and there's no need to use energy to pump it. More can be grown on less land. If some of the water saved is returned to the river, animal and plant habitats are saved.

We all use water in our everyday life too, and there are things we can do at home to use less and allow more water to stay in the freshwater habitats where it is needed. We can use less water when washing, cooking, and flushing the toilet.

We can also remove or alter dams that cause problems by disrupting the flow of freshwater. And we can think more carefully about whether, and where, to build new ones. We should explore different ways to generate renewable electricity and collect water for drinking and irrigation without blocking entire rivers.

# OUR FROZEN WORLDS

## Our life on earth depends on the coldest places on our planet – the icy worlds of the Arctic and Antarctica.

**The Arctic region** is the northernmost region of the planet, consisting of the Arctic Ocean and parts of Russia, Greenland, Canada, USA, Norway, Iceland, Sweden and Finland that lie above the 'Arctic Circle'. This is an imaginary line around the top of the globe. About 4 Million people live in the Arctic region, and the Arctic sea ice supports a wide range of animal species from microscopic algae to the world's largest land carnivore, the polar bear.

At the other end of the earth, **the Antarctic** is the world's highest, driest, windiest and coldest continent. It is bigger than Europe and is so dry that it's actually classed as a desert. The freezing Southern Ocean surrounding Antarctica is teeming with life. The waters are full of nutrients which feed plankton at the bottom of the food chain. This is a vital source of food for krill, tiny shrimp-like creatures which are then eaten by seals, penguins, seabirds and whales.

### WHY DOES ICE MATTER?

The ice provides a platform on which much life in the polar regions depends. Polar bears need the sea ice to hunt for seals. If the ice connected to land forms later and melts earlier in the year, the bears have less time to hunt and it becomes harder for females to build up the fat stores that they need to nurse their cubs. Walrus can't climb out of the sea onto thin ice, and caribou risk falling


through it as they cross between islands or headlands. In the Antarctic, krill need sea ice under which to feed and nurture their young. Penguins, which eat krill and small fish are a vital source of food for predators such as leopard seals and killer whales.

Gentoo penguins in Antarctica live mainly on crustaceans, such as krill. Krill depend on the shelter and algae food source provided by sea ice to survive their first year of life.



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Almost all humpback whales in the Southern Hemisphere come to the Antarctic to feed on krill. Since the ban on commercial whaling, their numbers have recovered dramatically, but their food supply is now under threat.

Every one of us needs the ice in these frozen worlds. That's because it reflects the rays of the sun back into space and this keeps our planet cool. The polar regions act as a giant air conditioner, helping to protect us from the effects of climate change.

### SO, WHAT'S THE PROBLEM?

Globally, sea ice is diminishing faster than ever before. Some regions are losing sea ice faster than others, with terrible consequences for wildlife in those areas. We are burning fossil fuels such as coal, oil, and natural gas which releases carbon dioxide into the earth's atmosphere. This causes global warming and melting ice. At a local level cars that use petrol or diesel add to the problem, while also making the air we breathe dirty so that more people get asthma as a child, and people die earlier because of problems caused by air pollution.

Melting ice causes lots of problems that affect everyone on the planet – not just the animals who need the ice to hunt, breed and sleep. Loss of ice from the poles is causing weather systems to change because the Arctic and parts of Antarctica are warming faster than the rest of our planet. We are already seeing more droughts and flooding around the world. Also, when ice melts it will cause sea levels to rise so that millions of people and lots of wildlife could see their homes disappear below the waves.

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### WHAT CAN WE DO?

The future of our planet is in our hands. We have the technology to use energy that comes from clean and renewable sources such as wind and solar power. If we stop burning fossil fuels it's better for our planet and better for us too. Using renewable energy is cheap, and it means we can breathe clean air which keeps us all healthier. Electric cars can reduce the use of petrol, which means cleaner air for us all to breathe. If the electricity is coming from clean renewable sources then the planet is benefiting too!



# OUR GRASSLANDS

**You may know them as prairies, steppes, meadows, savanna or pampas – grasslands cover over a quarter of the land on our planet.**

The first peoples hunted across their vast spaces. Later they settled and began farming, turning grasslands into fields of corn, wheat or other crops. Grasslands are found on every continent except Antarctica. They are found where there is not enough regular rain for forests to grow. Instead these huge areas are covered in grasses which can keep on growing even after being chewed on by animals. When rain arrives, many grasslands are covered in flowers. They can even spring back to life after fires.

Grasslands also absorb carbon from the atmosphere and store it underground, helping to prevent global warming. The more different plant species there are in a grassland, the more efficient it is at absorbing CO<sub>2</sub>.

## THE GREAT EXPANSES

Across our planet, grasslands support huge numbers of grazing animals such as zebra, antelope and wildebeest. Many of these are constantly on the move following the rain that causes the grass to flourish, and can migrate over very long distances. In turn, these grazers stimulate new growth with their trampling feet, keep trees and shrubs from taking over, and provide food for predators including big cats and African wild dogs. This is all part of a natural balance and is made possible because there is enough space, meaning that the grazing animals get enough to eat without over-using the grassland.

Grasslands are not just valuable for wildlife. With their deep and fertile soils, no other habitat is as useful to humans. For over 10,000 years, people have used grasslands to support herds of grazing domestic animals and to grow staple crops. As the number of people has grown, so we have converted more grasslands to farmland.

Each year over two million wildebeest, zebras and gazelles migrate across Northern Tanzania and Kenya in search of green pasture.





## GRASSLANDS UNDER THREAT?

The taming of the grasslands has meant that wild animals have lost their habitats. They are forced to try to find food or living space closer to people, and this can lead to clashes. Elephants may damage crops in their search for food, and predators may hunt livestock or even humans if food is scarce elsewhere. Grassland animals are also threatened by hunters. In recent years, attacks by poachers on rhinos to steal their horns has brought the species to the edge of extinction.

Too much grassland habitat is being taken by humans to use for farming. But much of what we grow we do not eat directly. We are destroying vital habitats to give us a meaty diet. The Cerrado savanna is home to a third of the species in Brazil, including the giant anteater, and is home to more than 4000 types of plant that grow nowhere else. But it is being converted into huge farmlands to grow soya beans. This crop is sent to China and Europe to feed chickens and cows, that themselves need large areas of land to farm.

## WHAT CAN WE DO?

### GET SMART ABOUT HOW WE FARM

With careful choices, our planet can give us space to grow enough food for every person and leave enough space for the incredible wildlife that needs grasslands to survive. We need to think more carefully about what we eat and also how we can farm more efficiently to use less space. We can make crops – and land – more productive, and people are already exploring new ways to farm on the sides of skyscrapers, on floating rafts in the sea, and even underground.

### EMBRACE PLANT POWER

If we swap some of our meat and dairy for plant-based foods such as vegetables, pulses, fruits, nuts and grains, then we could feed more people using less space. Producing 1 kg of beef uses almost 70 times as much land as producing 1 kg of vegetables or grains. Reducing our meat and dairy intake could be the key to a brighter future for grasslands.



Wild Indian elephants in Kaziranga National Park, Assam, India

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### PROTECT PRECIOUS WILDLIFE

Grassland species need protection from poaching, and their migration routes must be kept clear to allow them to travel the distances they need to find food.



# OUR SEAS

Whether our homes are near or far from the sea, our lives depend on our planet's oceans. Covering about 70% of the earth's surface, our seas supply half the oxygen we breathe, and provide food and livelihoods for more than a billion people.

They are also home to a wondrous array of wild species, from tiny plankton to the biggest creature that's ever existed – the blue whale. There are known to be more than 260,000 different species living in the seas, and we know that there are many yet to be discovered. Some scientists believe there are more than a million species in the seas, though human activity is driving some to extinction before we have had a chance to study them.

## COASTAL SEAS

Although they make up only 10 per cent of the ocean, these shallow waters of coastal seas (within 230 km of land) are home to 90 per cent of all marine species. Here sunlight reaches the sea floor, so plants can grow. These provide food for animals, protection from predators and a safe place for animals to breed and raise young. The coastal seas are made up of many different ecosystems including coral reefs, river estuaries, rock pools, salt marshes, mangrove forests and fields of underwater sea grasses.

**Every species in a coastal sea community is important to the rest.** If one is taken away, it can cause big problems for the other species that needed them for food – and even for

those that were food for that species, since predators stop populations from getting too big and using up all of the resources. Food chains can be delicate and complex!

**Fishing provides the main income for over 200 million people**, so it's really important to humans that these coastal seas are supported to be healthy habitats in which fish can live and breed now and forever.

Pacific Herring move into shallow waters in spring to spawn. Allowing fish to safely breed and grow in our coastal seas would help increase fish populations throughout the ocean.



## HIGH SEAS

Beyond the beaches and shallow coastal waters lie the high seas which cover more than 60 per cent of our planet's surface. This is by far the largest habitat on our planet, but also one of the least understood.

On average our oceans are 2.5 miles deep, and parts of the high seas are nearly 7 miles deep, forming the largest space for life on the planet. At present we have explored only 5% of the world's oceans.

## PHYTOPLANKTON: TINY LIFE SAVERS

An expanse of seemingly empty ocean may contain much more life than it appears to the naked eye.

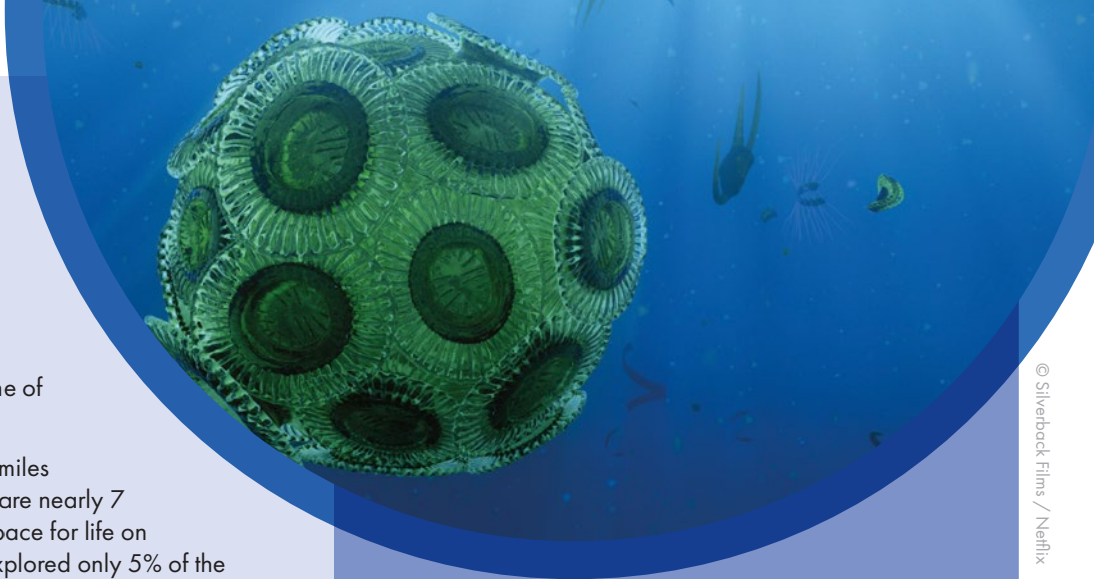
**Phytoplankton** are microscopic floating algae which drift on the ocean currents. Phytoplankton convert CO<sub>2</sub> to Oxygen and protect themselves from harmful UV rays by releasing a chemical that causes clouds to form overhead. These clouds play a role in slowing global warming by reflecting sunlight back into space. This role forming clouds mean that the oceans also drive weather systems that sustain life in other parts of the world.

As well as doing this amazing job, phytoplankton are food for **zooplankton** (simple water-dwelling creatures), such as **krill**, which are the most numerous animals on earth. These in turn provide food for many sea creatures including the biggest animal that has ever lived on earth – the **blue whale**.

## THE MYSTERIOUS DEPTHS

We used to believe that very little lived in the cold, dark depths of the ocean. The more we explore, the more we realise that there is actually a lot of life down there – though not as we know it! Strange creatures roam, adapted to the pressure of the deep ocean, and often creating their own lights to lure prey. We have even found that coral reefs are not restricted to shallow coastal waters.

Much deep-sea life depends on 'marine snow' consisting of the remains of dead creatures and the poo of living ones which drifts down from the more heavily populated surface waters. In the total darkness of the deep ocean floor volcanic vents release super-hot, mineral rich water. Around these vents a huge abundance of life thrives. Strange creatures survive here by feeding on bacteria that get their energy from the chemicals flowing from the vents. We only found out that these unique habitats existed about 50 years ago, and there may be many more across the ocean floor.



Phytoplankton support the entire food chain of the open ocean, and produce half the oxygen in the air we breathe. No matter how far from the ocean you live you can thank these little plants for every other breath you take.

“ AS WELL AS DOING THIS AMAZING JOB, PHYTOPLANKTON ARE FOOD FOR ZOOPLANKTON (SIMPLE WATER-DWELLING CREATURES), SUCH AS KRILL, WHICH ARE THE MOST NUMEROUS ANIMALS ON EARTH. THESE IN TURN PROVIDE FOOD FOR MANY SEA CREATURES INCLUDING THE BIGGEST ANIMAL THAT HAS EVER LIVED ON EARTH – THE BLUE WHALE.”

## WHAT'S THE PROBLEM?

Despite the vastness of the oceans, human activity is devastating ocean ecosystems. **Illegal fishing** and **overfishing** means that fish can't build up their numbers and whole populations are being wiped out, causing problems to the whole community of creatures and plants in that ecosystem, and the humans who depend on them for a living.

**Noise from human activities cause problems for ocean wildlife too.** The noise from a ship's propeller can travel 100km through water, and can disturb fish and stop them communicating and breeding. Noise from mining can cause problems in the same way, as well as destroying habitat and risking pollution that can kill wildlife. Scientists and conservationists now argue for 30 per cent of the high seas to be protected from fishing and mining through 'Marine Protected Areas' which all countries agree to leave alone as spaces for nature.

The effects of human activity are felt in the remotest parts of the high seas. Every year almost 9 million tons of plastic enters the ocean. That's the same as a rubbish truck emptying its load every minute. In the middle of the Pacific a huge area of plastic rubbish, twice the size of France, is kept in place by the swirling currents. Plastic chokes the

oceans and harms marine life. Blue whales have been washed up dead on seashores with pieces of plastic in their stomachs which they probably mistook for squid.

**Climate change is also harming ocean life.** Warmer water can absorb more CO<sub>2</sub> from the air, and this makes the ocean more acidic than before. This means the conditions are changing from those in which sea creatures evolved, and in some cases it stops them from being able to build their shells or exoskeletons.

There is much that needs doing in the oceans. We need to act. The quicker we act, the better the chance that damaged marine ecosystems – the fish we catch for food, the cold-water corals and hydrothermal vents, the vast pods of whales and mysterious deep-sea creatures – will recover fully. The result will be a healthy ocean that provides food and jobs for people as well as homes and food for wildlife well into the future.



Whales and other big sea creatures help sustain phytoplankton and therefore all life in the ocean by fertilising the surface waters with their poo, and by mixing air into the water when they break the surface.

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## WHAT CAN WE DO?

We can keep enjoying the riches of the oceans, but only if we look after them and don't take too much from them. One way to protect the future of the oceans is for countries to create **Marine Protected Areas (MPAs)** in their coastal waters where no fishing is allowed. These safe spaces will mean that there are always places for fish to grow big and reproduce, and as well as ensuring that fish species don't die out this will mean we'll actually catch more fish than we do at the moment. The seas will recover, there'll be more fish in the sea, and we'll catch more too – it's win-win all round!

When seas are within the border of a country, that country can set rules on who can use the waters for fishing, mining and transport of goods in ships, and how much they are

allowed to do these things. The high seas are international waters, owned by no one, and therefore open for anyone to use as they want. This means that they are also the least protected waters, open to damage by over-fishing, mining, shipping and pollution. **Less than 2% of the world's international waters have any form of protection.** In the past – when there were fewer humans on the planet – fish populations seemed limitless and oceans too big to pollute, but with human impacts now extending to the most remote and deepest parts of the oceans, action is needed to stop the damage before it is too late. If we want to keep our oceans healthy, we need an **international treaty** to protect them for generations to come.

The choices we make when buying seafood can help ensure a good future for our oceans and seas – and for us! Check labels for information about how fish or shellfish was caught or farmed, and try to avoid species that are known to be in trouble. You can find a local sustainable seafood guide to help you decide what it is OK to eat.

Good	Bad
From a sustainable fishery (eg MSC certified)	No accreditation – could be from over-fished waters
Line Caught	Trawled / long line / gill net
Locally sourced	Imported from other countries
Hand gathered shellfish	Dredged shellfish
Organically farmed	Intensively farmed