

Global warming threatens to kill off a million species

Level 3 | Advanced

Scientists express shock at scale of disaster facing planet as Pacific islanders plan exodus to New Zealand.

1 Key vocabulary

Fill the gaps using these key words from the text.

extinct	conservation	irreversible	species
startling	migration	curb (verb)	doomed

1. _____ means 'surprising' or 'very unusual'.
2. An _____ condition or situation is one which is impossible to change or bring back.
3. If something is _____, it is certain to fail or to be destroyed.
4. An _____ animal or plant no longer exists.
5. If you _____ something, you limit or control it.
6. _____ is the process by which land and water is managed to prevent it being destroyed or damaged.
7. A _____ is a plant or animal group whose members all have similar general features.
8. _____ is the process of moving to another part of the world.

2 Find the information

Look in the text and answer these questions.

1. How many species are expected to be lost by the year 2050?
2. How much of the land surface of the world does the report on global warming cover?
3. How many species of butterfly did they study in Australia?
4. How many species of South African plants are expected to die out?
5. How many species were examined in Mexico?
6. How long does it take for the greenhouse effect to have its full effect on the planet?
7. Which gases cause the greenhouse effect?
8. Which human activities produce greenhouse gases?

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The changing climate over the next 50 years is expected to drive a quarter of land animals and plants into extinction, according to the first comprehensive study into the effect of higher temperatures on the natural world. The scale of the disaster facing the planet shocked those involved in the research. They estimate that more than 1 million species will be lost by 2050.

The results are described as "terrifying" by Chris Thomas, professor of conservation biology at Leeds University, who is lead author of the research from four continents published last week in the magazine Nature. Much of that loss - more than one in 10 of all plants and animals - is already irreversible because of the extra global warming gases already discharged into the atmosphere. But the scientists say that action to curb greenhouse gases now could save many more. It took two years for the largest global collaboration of experts to make the first major assessment of the effect of climate change on six biologically rich

regions of the world taking in 20% of the land surface. The research in Europe, Australia, Central and South America, and South Africa, showed that species living in mountainous areas had a greater chance of survival because they could move uphill to get cooler.

Professor Thomas said: "When scientists set about research they hope to come up with definite results, but what we found we wish we had not. It was far, far worse than we thought, and what we have discovered may even be an underestimate."

Among the more startling findings of the scientists was that of 24 species of butterfly studied in Australia, all but three would disappear in much of their current range, and half would become extinct.

In South Africa, major conservation areas such as Kruger National Park risked losing up to 60% of the species under their protection, while of 300 South African plant species studied, more than one third were expected to die out, including the national flower, the King Protea.

In the Cerrado region of Brazil which covers one fifth of the country, a study of 163 tree species showed

that up to 70 would become extinct. Many of the plants and trees that exist in this savannah occur nowhere else in the world. In Europe, the continent least affected by climate change, survival rates were better.

Studies in Mexico's Chihuahuan desert confirmed that on flatter land extinction was more likely because a small change in climate would require migrations over vast distances for survival. One third of 1,870 species examined would be in trouble.

So many species are already destined for extinction because it takes at least 25 years for the greenhouse effect - or the trapping of the sun's rays by the carbon dioxide, methane and nitrous oxide - to have its full effect on the planet. The continuous discharge of more greenhouse gases, particularly by the United States and European nations, is making matters worse. The research says that, if mankind continues to burn oil, coal and gas at the current rate, up to one third of all life forms will be doomed by 2050.

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3 Comprehension check

Choose the best answer for each question.

1. Why is the loss of more than 10% of all plants and animals described as “irreversible”?
 - a. Because it is impossible to prevent the greenhouse effect.
 - b. Because the gases that will kill these species have already been discharged into the atmosphere.
 - c. Because it took two years for the scientists to make their assessment.
2. Why do species living in mountainous areas have a greater chance of survival?
 - a. Because the air is cooler.
 - b. Because they can move to where the air is cooler.
 - c. Because there are fewer species in mountainous areas.
3. Which sentence best describes how Professor Thomas feels about the results of the research?
 - a. He is pessimistic.
 - b. He is optimistic.
 - c. He is terrifying.
4. What will happen to the national flower of South Africa?
 - a. It will be conserved in the Kruger National Park.
 - b. It will be protected.
 - c. It will become extinct.
5. What is the greenhouse effect?
 - a. The continuous discharge of greenhouse gases.
 - b. The trapping of the sun’s rays by greenhouse gases.
 - c. The burning of oil, coal and gas.

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4 Find the word

Look in the text and find these words:

1. A word which means a wrong idea that something is smaller or less important than it really is.
2. Another word for 'size' or 'extent'.
3. A noun which means the process of working together with other people on a specific project.
4. A noun used to describe a large flat area of land covered with grass in a warm part of the world.
5. A two-word verb which means the same as 'to become extinct'.
6. An adjective which means 'extremely large'.

5 Vocabulary - prepositions

Fill the gaps using an appropriate preposition.

1. A number of people were involved _____ the research.
2. The scientists hoped to come up _____ definite results.
3. Some areas risk losing up _____ 60% of their species.
4. Europe is the continent least affected _____ climate change.
5. A number of species are already destined _____ extinction.
6. It takes 25 years for the greenhouse effect to have its full effect _____ the planet.
7. More than one _____ 10 _____ all plants and animals may be lost.
8. Up to one third will become extinct _____ the year 2050.

6 Discussion

A major contributor to the greenhouse effect is the burning of fuel by cars and aeroplanes. Make a list of the points for and against travelling by car and plane. How do you think our travel habits will change in the next 25 years?