Year 2 Semester 2
Core English B2

MORE THAN JUST SURVIVAL

1. No one really knows how many species of animal there are in the world, but one estimate puts it at just under nine million. However, the majority of species have not been identified, and we are still discovering new ones at a rapid rate. Since we have identified so few animals, it is difficult to determine the rate of extinction. However, it is thought that between 0.01% and 0.1% of all species could become extinct every year. This rate would mean between 900 and 9,000 extinctions every year. While this is an alarming rate, it is not inevitable that an animal will become extinct. In fact, a number of animals that were close to dying out have actually been brought back from the edge of extinction. Doing so may help humans survive as nature still provides the vast majority of medicines people use.
2. There are a number of different factors that lead to the extinction or near extinction of an animal, including hunting and habitat destruction. An example of this is the gray whale, of which there were once three main groups spread across the world's oceans. One has been hunted to extinction, but two continue to survive. Of these, one is thought to be endangered while the other is thriving. Twice hunted to near extinction, the gray whale was given protected status nearly 80 years ago, and hunting was limited to fewer than 200 annually. In the 1940s, the population had been hunted to fewer than 2,000. However, by the 1990s, the population had risen again to over 23,000. The increasing human population, set to peak at around nine billion, is also threatening the survival of some species. Habitat destruction for resources and farming land has all but wiped out some species such as lemurs and orangutans.
3. When a population falls to such low numbers, or it is confined to a small protected area, this places a number of other challenges on its long-term survival. One big risk is that when animals breed from low numbers, there is not enough variety in their genes. Animals thrive by being diverse, and when animals breed from such a tiny group, there can be dangers of weaknesses developing and animals being unable to survive. The Arabian gazelle was once in decline, but due to protection efforts, its numbers are rapidly increasing again. To reduce the problem of a limited gene pool, the environment agency studied the variation within the species in different areas. The aim was to not just manage the quantity of the population, but also the quality, by trying to increase the variation in genes. A strong and varied DNA pool will make the species' chances of survival much greater.
4. It is important that protection efforts do not just focus on a single species. Protecting the wider food chain can help increase the population of an endangered species. The Amur tiger, native to Russia, Northern China, and Mongolia and once hunted to just 40 animals in the 1940s, was the first tiger in the world to be given full protection. Nowadays, the hunting of tigers has generally become quite rare, however, the thing that helped the Amur tiger recover so rapidly was the restriction of hunting other animals. These included boars and deer that were the

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natural prey of the tiger. The continued protection of their environment and ban on hunting has allowed their numbers to recover to over 500 today.

5. The food chain is intrinsically linked to the ecosystem of an area. If a key part of that ecosystem is damaged, then it can affect many other species. An example of one such animal is the mountain gorilla, which without the conservation efforts of some individuals and charities would possibly already be extinct. These organizations have worked with local communities and governments to protect the habitat of these gorillas. While there are only in the region of 700 alive today, and they are listed as critically endangered, if efforts had not been made, there could quite easily have been none left today. Another example of this is the recent pressures many bees have faced on their habitats. Without bees, crops would rarely be pollinated and major shortages of food would occur. People depend on the ecosystem to ensure their supply of food and water, and ecosystems being disrupted can have serious consequences.
6. Our actions may also have other consequences that we do not always realize. Take what many consider to be the first environmental success-protecting whales in the 1960s. At the time, this was little more than an exercise in protecting an endangered species. However, research shows that whales are vital to the oceans' carbon cycle because their iron-rich faeces feeds phytoplankton, organisms that absorb carbon dioxide. The more phytoplankton there are, the more carbon dioxide is absorbed. In the 20th century, some 300,000 blue whales were hunted from our oceans along with many hundreds of thousands of other whales. This not only endangered a species, but also caused a reduction in phytoplankton and possibly exacerbated the issue of climate change. Protecting whale populations could rebalance the ecosystem in our oceans and help reduce carbon levels in the atmosphere.
7. Another potential benefit comes from the economic boost provided from ecotourism, which has become big business for many local communities. Ecotourism seeks to reduce the damage traditionally caused by industries and to protect the local environment. Such was its success in Costa Rica that several national parks and reserves were created. Jobs such as tour guides are created as a result of ecotourism, while local businesses, from craftspeople to restaurateurs, can also benefit. In Costa Rica, it was found that this economic boost reduced the environmental damage caused by local activities as well.
8. Humans have had a detrimental effect on a range of wildlife throughout the world. No one solution will solve all of these challenges, but reacting to the local situation can assist in re-establishing animals once on the edge of extinction.

D Close reading

1 Read these sentences from *More than just survival*. In each sentence, circle the synonym of the underlined word or phrase.

1 In fact, a number of animals that were close to dying out, have actually been brought back from the edge of extinction.

2 There are a number of different factors that lead to the extinction or near extinction of an animal. One reason, especially in the past, was the over-hunting of an animal.

3 Twice hunted to near extinction, the gray whale was given protected status nearly 80 years ago, and hunting was limited to fewer than 200 annually. In the 1940s, the population had been hunted to fewer than 2,000.

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2 Read paragraph 3 and identify the synonyms of these words.

1 challenges _____

2 low numbers _____

3 variety _____

3 Read *More than just survival* again and complete the sentences using no more than two words.

1 One way to conserve a species is to stop hunting of the rest of the _____.

2 The Amur tiger was the first tiger to get _____.

3 The mountain gorilla is _____ but could have been extinct if it hadn't been protected.

4 Humans rely on local environments for access to _____ and _____.

5 During the _____, huge numbers of whales were hunted.

6 Giving whales a protected status may lower _____ and reduce global warming.

Read the research questions. Match the questions (A–G) to the paragraph of the text (1–7) that contains the information.

A Are scientists discovering other benefits to protecting species? ___

B What effects does protecting the environment have on the economy? ___

C How many species become extinct annually? ___

D What are the main human activities that affect animal numbers? ___

E What effect can protecting animals have on the food chain? ___

F What are the risks associated with low species numbers? ___

G What else do we need to protect an endangered species? ___

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