

NAME:.....

READING PASSAGE

You should spend about 20 minutes on **Questions 1-13**, which are based on Reading Passage below.

The Bittern in the UK: Reason for Hope in the Face of Concern

- A** In modern times, an enormous number of species have disappeared from the planet permanently. Similarly, many species have become locally rare or absent, and these cases are also of concern for conservationists. One example is the Eurasian bittern, a bird species in the heron family with an extremely broad distribution throughout much of Europe, Asia, and parts of Africa. Though abundant worldwide, it has struggled in some places, such as the United Kingdom, where its numbers have plummeted over the past two centuries. This is particularly true of non-migrating breeding pairs as seasonal winter visitors are a regular occurrence in parts of Great Britain. In the UK, the bittern became extinct by the late 1880s before reappearing in 1911. Subsequently its population gradually increased until the 1960s, when it once again began to decline dramatically. By the early 1990s, the bittern was on the verge of vanishing in the UK for the second time in as many centuries, with as few as 11 males remaining.
- B** Hunting was probably the greatest threat to the bittern in the early 1800s, as the birds were easy targets for Scottish nobles who practised falconry, and they were widely valued among the population at large for their highly palatable meat. But the bittern's demise in the second half of the 19th century, and the more recent decline encompassing the period from the 1960s to the 1990s, was due to environmental mismanagement. Much of this was a result of human-induced habitat loss or destruction, primarily through the draining of wetlands for agricultural purposes. Eurasian bitterns require freshwater wetlands, and in the UK these birds are particularly associated with beds of reed; indeed, these reed marshes are the lifeblood of this vulnerable species. It is estimated that as much as 40 per cent of this habitat was lost between 1945 and 1990 due to human development.
- C** However, some of the loss of habitat was due to the drying up of wetlands because of the encroachment of plants and trees. Interestingly, this was also due to human behavioral patterns. Historically in Great Britain, reeds were cut, dried, and bundled for use in the thatching industry, which supplied the traditional thatched roofs that can still be seen in some English towns. But in modern times, changes in building patterns led to the decline of this practice, which had traditionally maintained the reed monoculture that bitterns seem to favour. Thus, leaving the wetlands to nature ironically contributed to the bittern's demise.

- D** A continual challenge is that the largest remaining marshes of this type are in the eastern coastal areas of England, where they are susceptible to occasional but recurring infiltration by saltwater. Though these reed marshes support bittern populations, they are too at risk of natural tidal influences to be relied on exclusively. In addition, the diet of these birds is based heavily on two fish, eels and rudd, which are also frequent visitors to reed beds. This dependence is particularly true in the breeding season, as studies of regurgitated food indicate that the diet of bittern chicks is almost exclusively made up of these fish.
- E** The answer to the problem, then, is the creation of completely new wetlands suitable for bittern occupation, which must be done in conjunction with the extension of existing ones, and this challenge has recently been taken on by conservationists. At Avalon Marshes, environmental projects have been conducted to reclaim traditional marshland that had been altered by development on many occasions throughout history. This undertaking has resulted in new small, landscape-scale reed beds, and whilst they are insufficient to maintain a huge bittern population on their own, they significantly add to the strength of the overall bittern population in England. This effort was essentially a wetland reclamation project after minerals and peat had been extracted for commercial purposes. Similarly, agencies such as the Royal Society for the Protection of Birds (RSPB) have mobilised 'to create new wetlands on a previously unimaginable scale'.
- F** Environmentalists have determined that upwards of 1 million hectares are suitable for the creation of new reed beds, and they've found an ally in the resurgence of the thatching industry. A space of 10 hectares can sustain one reed cutter for a whole season, and considering that every 1000 additional hectares can support 50 more bitterns, the only thing standing in the way of a successful bittern revival is the collective will of government agencies, private industry, and landowners.
- G** Due to conservation efforts, the population of bitterns began to rise after 1997, and while the future of the bittern in Great Britain is uncertain, it is potentially bright based on recent trends. Though counts are imprecise - the birds are extremely secretive and difficult to observe, so numbers must be inferred from the calls ('booms') of males - detailed studies reveal promising results. A comprehensive assessment of nearly 400 sites determined that a minimum of 600 bitterns were present in Great Britain in the winter of 2009-2010. Of these, researchers estimated that approximately two-thirds were winter immigrants, leaving perhaps 200 or so year-round residents. Recently, a subsequent partial survey by the RSPB indicated that there were at least 132 resident males, and in an example of localised population growth, Avalon Marshes reported that their population of bitterns had grown considerably over the past few seasons.

Questions 1-6

Answer the questions below.

Choose **NO MORE THAN TWO WORDS AND/OR A NUMBER** from the passage for each answer.

- 1 How many bitterns remained in Britain in the early 1990s?
- 2 Who was mentioned in relation to the hunting of bitterns?
- 3 What kinds of roofs were traditionally used on houses in Great Britain?
- 4 What sometimes flows onto the reed marshes in the east of England?
- 5 How much land is needed to support a reed cutter for a season?
- 6 Which local area saw an increase in the bittern population?

Questions 7-11

Reading Passage has seven paragraphs, A-G.

Which paragraph contains the following information?

- 7 a reference to the prior extinction of bitterns in the United Kingdom
- 8 how a wetland was rescued after their commercial use
- 9 a description of the amount of land that is suitable for creating new reeds
- 10 a statement about wetlands being drained to support agriculture
- 11 the way a decline in reed cutting negatively affected the bittern population

Questions 12 and 13

Choose **TWO** correct letters, A-E.

- 12-13 Which **TWO** characteristics of the fish that bitterns rely on for food are mentioned?
- A They are usually found in tidal areas.
 - B They are far more numerous than in the past.
 - C They often spend time in reed beds.
 - D They are especially important in the breeding season.
 - E They are in danger of becoming extinct soon.