**Conversation1**

[**https://toefl.kmf.com/detail/listen/c1fbxj.html?d=11**](https://toefl.kmf.com/detail/listen/c1fbxj.html?d=11)

1. What does the professor talk about with the man?

A. Reasons the man should work at the field station next summer instead of working independently

B. Reasons the man should change the focus of his independent study project

C. Projects that the man has permission to work on next summer

D. Whether the man would be willing to cooperate on a project with another student

2. What does Professor Garfield suggest the student do during the spring term?

A. Take a particular class

B. Modify his research topic

C. Pay the field-station program fee

D. Begin collecting data

3. What do the student and John Arnold have in common?

Click on 2 answers

A. They were both on the waiting list for the summer field program.

B. They will both be doing research involving salt marshes.

C. They often volunteer to help restore salt marshes.

D. They live in the same university dormitory.

4. What does the professor say is the main topic of John Arnold’s research?

A. Establishing size recommendations for salt marsh habitats

B. The relationship between bridge size and the flow of tidal waters

C. How the vegetation of coastal habitats is affected by the restoration of salt marshes

D. Ways of assessing levels of stress on salt-marsh habitats

5. What can be inferred about the student when he says this:

A. He cannot participate at the field station because of a prior commitment.

B. He is unsure if he will earn enough course credits before the summer.

C. He prefers to do the independent study instead of working at the field station.

D. He thinks he may not have enough time to complete the required work over the summer.

**Conversation2**

[**https://toefl.kmf.com/detail/listen/11g85j.html?d=11**](https://toefl.kmf.com/detail/listen/11g85j.html?d=11)

1. Why does the woman go to the information desk?

A. She does not know where the library computers are located.

B. She does not know how to use a computer to locate the information she needs.

C. She does not have time to wait until a library computer becomes available.

D. The book she is looking for was missing from the library shelf.

2. Why does the man assume that the woman is in Professor Simpson's class?

A. The man recently saw the woman talking with Professor Simpson.

B. The woman mentioned Professor Simpson’s name.

C. The woman is carrying the textbook used in Professor Simpson's class.

D. The woman is researching a subject that Professor Simpson specializes in.

3. What can be inferred about the geology course the woman is taking?

A. It has led the woman to choose geology as her major course of study.

B. It is difficult to follow without a background in chemistry and physics.

C. The woman thinks it is easier than other science courses.

D. The woman thinks the course is boring.

4. What topic does the woman need information on?

A. The recent activity of a volcano in New Zealand

B. Various types of volcanoes found in New Zealand

C. All volcanoes in New Zealand that are still active

D. How people in New Zealand have prepared for volcanic eruptions

5. What does the man imply about the article when he says this:

A. It may not contain enough background material.

B. It is part of a series of articles.

C. It might be too old to be useful.

D. It is the most recent article published on the subject.

**Lecture 1**

<https://toefl.kmf.com/detail/listen/81f78j.html>

1.what is the main purpose of the lecture?

A. To argue that carbon emissions today are not the only factor responsible for global warming

B. To provide evidence that rates of global carbon emissions fluctuate over time

C. To show the importance of distinguishing between different types of carbon emissions

D. To describe different ways carbon is removed from the atmosphere

2. what aspects of outer space does the professor emphasize? Click on 2 answers

A. Its vastness

B. Its cold temperatures

C. The absence of life there

D. Its role as the ultimate source of energy on Earth

3. According to the professor, how do the oceans remove carbon from the atmosphere?”

Click on 2 answers

A. By dissolving it

B. Through a process of condensation and precipitation

C. By storing the remains of marine animals

D. Through the regulation of air temperatures

4. Why does the professor mention mining?

A. To explain why the price of fossil fuels is continually rising

B. To explain how certain fuel sources can be recovered from the ocean floor

C. To explain why coal and oil are more difficult to obtain than natural gas

D. To explain why fossil fuels contribute to an excess of carbon in the atmosphere.

5. What does the professor mean when he refers to biomass carbon as “current carbon"?

A. It is the fuel source most widely approved by environmentalists today.

B. It is part of a balanced system of carbon emission and absorption.

C. It is circulated throughout the oceans by the movement of oceanwater.

D. It readily combines with other carbon molecules to produce long chains.

6. Listen again to part of the Lecture. Why does the professor say this:,

A. To let students know that the term "greenhouse effect" will be tested

B. To indicate that the definition of "greenhouse effect” will be discussed

C. To suggest that his previous definition of "greenhouse effect"w as imprecise

D. To acknowledge that there is controversy surrounding the use of the term “greenhouse effect"

**Lecture 2 Interactions Within an Ecosystem**

https://toefl.kmf.com/detail/listen/31ma5j.html

1.What is the lecture mainly about?

A. A new approach to ensuring the survival of a forest ecosystem

B. Similarities between desert and forest-stream ecosystems

C. Interactions that take place within a North American forest ecosystem

D. Factors that have contributed to the preservation of salmon populations in forest ecosystems

2.Why does the professor mention ants and rodents competing for food?

A. To make sure the students understand the different components of an ecosystem

B. To point out the limited resources available to organisms in a desert ecosystem

C. To illustrate how different species adapt to extreme temperatures

D. To provide an example of an easily understood interaction within an ecosystem

3. According to the professor, how do trees contribute to the successful spawning of salmon?”)

Click on 2 answers

A. They provide streams with nutrients that the salmon need.

B. They provide shade that keeps streams sufficiently cool.

C. They help salmon avoid predators by providing camouflage.

D. They reduce the amount of sediment entering streambeds.

4. What point does the professor make about bears carrying salmon away from streams?)

A. It results in bears eating fewer fish.

B. It reduces the amount of food available to scavengers.

C. It improves the health of the surrounding trees.

D. It improves the water quality of the streams.

5. what does the professor imply about overfishing?

A. It is one of several reasons that the bear population has declined.

B. It is difficult to prevent in both oceans and streams.

C. It cannot be the sole focus for those working to prevent salmon depletion.

D. Its impact is minor compared to the problems caused by logging.

6. Why does one of the students say this:

A. To provide support for a hypothesis mentioned by the professor

B. To suggest that a bear behavior mentioned by the professor seems improbable

C. To explain why confrontations take place between bears

D. To explain why bears eat so much in a short time span

**Reading 1 Pleistocene Extinctions**

* 1. At the end of the Pleistocene (roughly 11,500 years ago), many large mammals became extinct. Large mammals in the Americas and Australia were particularly hard-hit. In Australia, 15 of the continent's 16 of large mammals died out; North America lost 33 of 45 genera of large mammals, and in South America 46 of 58 such genera went extinct. In contrast, Europe lost only 7 of 23 such genera, and in Africa south of the Sahara only 2 of 44 died out. What caused these extinctions? Why did these extinctions eliminate mostly large mammals Why were the extinctions most severe in Australia and the Americas No completely satisfactory explanation exists, but two competing hypotheses are currently being debated. One holds that rapid climatic changes at the end of the Pleistocene caused extinctions, whereas another, called prehistoric overkill, holds that human hunters were responsible.
  2. Rapid changes in climate and vegetation occurred over much of Earth's surface during the late Pleistocene, as glaciers began retreating. The North American and northern Eurasian open steppe tundras (treeless and permanently frozen land areas) were replaced by conifer and broadleaf forests as warmer and wetter conditions prevailed. The Arctic region changed from a productive herbaceous one that supported a variety of large mammals, to a relatively barren waterlogged tundra that supported a far **sparser** fauna. The southwestern United States region also changed from a moist area with numerous lakes, where saber-tooth cats, giant ground sloths, and mammoths roamed, to a semiarid environment unable to support a diverse fauna of large mammals.
  3. Rapid changes in climate and vegetation can certainly affect animal populations, but the climate hypothesis presents several problems. First, why did the large mammals not migrate to more suitable habitats as the climate and vegetation changed After all, many other animal species did. For example, reindeer and the arctic fox lived in southern France during the last glaciation and migrated to the Arctic when the climate became warmer.
  4. The second argument against the climatic hypothesis is the apparent lack of correlation between extinctions and the earlier glacial advances and retreats throughout the Pleistocene Epoch. Previous changes in climate were not marked by **episodes** of mass extinctions.
  5. **Proponents** of the prehistoric overkill hypothesis argue that the mass extinctions in North and South America and Australia coincided closely with the arrival of humans. Perhaps hunters had a tremendous impact on the faunas of North and South America about 11,000 years ago because the animals had no previous experience with humans. The same thing happened much earlier in Australia soon after people arrived about 40,000 years ago. No large-scale extinctions occurred in Africa and most of Europe because animals in those regions had long been familiar with humans.
  6. One problem with the prehistoric overkill hypothesis is that archaeological evidence indicates the early human inhabitants of North and South America, as well as Australia, probably lived in small, scattered communities, gathering food and hunting. How could a few hunters destroy so many species of large mammals However, it is true that humans have caused major extinctions on oceanic islands. ■For example, in a period of about 600 years after arriving in New Zealand, humans exterminated several species of the large, flightless birds called moas. ■A second problem is that present-day hunters concentrate on smaller, abundant, and less dangerous animals. ■The remains of horses, reindeer, and other small animals are found in many prehistoric sites in Europe, whereas mammoth and woolly rhinoceros remains are scarce. ■Finally, few human artifacts are found among the remains of extinct animals in North and South America, and there is usually little evidence that the animals were hunted. Countering this argument is the assertion that the impact on the previously unhunted fauna was so **swift** as to leave little evidence.
  7. The reason for the extinctions of large Pleistocene mammals is still unresolved and probably will be for some time. It may turn out that the extinctions resulted from a combination of different circumstances. Populations that were already under stress from climate changes were perhaps more vulnerable to hunting, especially if smaller females and young animals were the preferred targets.

1. According to paragraph 1, which of the following groups of mammals experienced a high extinction rate at the end of the Pleistocene

* + 1. Large mammals living in North America
    2. Small mammals living in South America
    3. Large mammals living in South Africa
    4. Large mammals living in Europe

2.According to paragraph 1, researchers have been able to answer which of the following questions about late Pleistocene extinctions

1. Why did some parts of the world experience more extinctions than others
2. Which parts of the world experienced the greatest number of extinctions
3. Did the large mammals of the Americas or Australia become extinct first
4. How rapidly did the climate change during the extinctions

3.What can be inferred from paragraph 1 about the extinctions that occurred at the end of the Pleistocene

1. They were caused by a single factor.
2. They had relatively little impact on small mammals.
3. They wiped out nearly all of the world's large mammal species.
4. They occurred slowly over a period of thousands of years.

4.All of the following are mentioned in paragraph 2 as changes that occurred during the late Pleistocene EXCEPT:

1. The Eurasian tundras became more forested as both temperature and rainfall increased.
2. The Arctic region became less productive, and much of its fauna and flora began to disappear.
3. The southwestern United States became much drier, resulting in a decline in species diversity.
4. The North American open steppe tundras became cooler, resulting in a decrease in vegetation.

5. In paragraph 3, why does the author point out that some animals living in southern France migrated to the Arctic when the climate became warmer

1. To show that more suitable habitats existed at the time that the megafauna became extinct
2. To question the idea that the megafauna were able to migrate to more suitable habitats
3. To provide evidence that weakens the climate hypothesis for the megafauna extinctions
4. To argue that smaller animals are more successful at adapting to rapid changes in climate

6.The word **episodes** in the passage is closest in meaning to

1. threats
2. patterns
3. reports
4. occurrences

7.The word **Proponents** in the passage is closest in meaning to

1. creators
2. opponents
3. reviewers
4. supporters

8.In paragraph 5, why does the author discuss what happened in Australia 40,000 years ago

1. To suggest that humans most likely arrived in North and South America much earlier than 11,000 years ago
2. To make a comparison that supports the prehistoric overkill hypothesis
3. To argue that most extinctions can be traced to the impact of humans on the environment
4. To emphasize the similarities between the extinctions that occurred in Australia and those that occurred in Africa and Europe

9.The word **swift** in the passage is closest in meaning to

1. effective
2. unexpected
3. quick
4. complete

10.According to paragraph 6, archaeological evidence of settlement patterns in North and South America indicates which of the following

1. Human populations may have been too small and too far apart to have caused the extinction of large mammals.
2. Humans may have lived too far away from the habitats of large mammals to have been responsible for their extinctions.
3. Humans probably did not cause the extinction of large mammals, because they spent far more time gathering food than hunting.
4. Humans probably did not remain in their settlements long enough to have a significant impact on populations of large mammals.

11.In paragraph 6, the author identifies all of the following as being problems with the prehistoric overkill hypothesis EXCEPT:

1. There were not enough people to kill so many species of large animals.
2. There is little evidence to show that extinct animals were hunted.
3. Prehistoric Europeans apparently preferred hunting smaller animals.
4. It took 600 years for humans in New Zealand to exterminate just a few species of moa birds.

12. Look at the four squares that indicate where the following sentence could be added to the passage.

**It should be noted, however, that island conditions that lead to extinction, such as limited space to escape predators, do not apply to landmasses such as continents.**

Where would the sentence best fit Click on a square to add the sentence to the passage.

13.Drag your choices to the spaces where they belong. To review the passage, click on View Text .

Answer Choices

1. Rapid climate change has been proposed as a cause of the extinctions, though there is strong evidence that mammals were able to survive similar climate changes in the past.
2. The climatic hypothesis has gained more support than the prehistoric overkill hypothesis because climate change can explain why very few extinctions occurred in Europe and Africa.
3. Some researchers have begun to doubt the idea that mass extinctions occurred at the end of the Pleistocene, because large animal remains are rarely found at settlements dating from this time.
4. Late Pleistocene hunters may have killed off large mammals when they first arrived in certain areas, but evidence from settlements and animal remains does not often support this hypothesis.
5. According to the prehistoric overkill hypothesis, the extinctions were concentrated in North and South America because these areas had more hunters and smaller populations of large mammals.

F. Although neither the climatic hypothesis nor the prehistoric overkill hypothesis alone explains late Pleistocene extinctions, elements of both and other factors may have contributed to the extinctions.

**Reading 2 The Geographical Distribution of Gliding Animals**

* 1. Southeast Asia has a unique abundance and diversity of gliding animals flying squirrels, flying frogs, and flying lizards with wings of skin that enable them to glide through the tropical forest. What could be the explanation for the great diversity in this region and the scarcity of such animals in other tropical forests Gliding has generally been viewed as either a means of escaping predators, by allowing animals to move between trees without descending to the ground, or as an energetically efficient way of traveling long distances between **scattered** resources. But what is special about Southeast Asian rain forest?
  2. Scientists have proposed various theories to explain the diversity of gliding animals in Southeast Asia. The first theory might be called the tall-trees hypothesis. The forests of Southeast Asia are taller than forests elsewhere due to the domination of the dipterocarp family: a family of tall, tropical hardwood trees. Taller trees could allow for longer glides and the opportunity to build up speed in a dive before gliding. The lower wind speeds in tall-tree forests might also contribute by providing a more advantageous situation for gliding between trees. This argument has several flaws, however. First, gliding animals are found throughout the Southeast Asian region, even in relatively short-stature forests found in the northern range of the rain forest in China, Vietnam, and Thailand. Some gliders also thrive in low secondary forests, plantations, and even city parks. Clearly, gliding animals do not require tall trees for their activities. In addition, many gliding animals begin their glides from the middle of tree trunks, not even ascending to the tops of trees to take off.
  3. A second theory, which we might call the broken-forest hypothesis, **speculates** that the top layer of the forest the tree canopy has fewer woody vines connecting tree crowns in Southeast Asian forests than in New World and African forests. As a result, animals must risk descending to the ground or glide to move between trees. In addition, the tree canopy is presumed to be more uneven in height in Asian forests, due to the presence of the tall dipterocarp trees with lower trees between them, again favoring gliding animals. Yet ecologists who work in different regions of the world observe **tremendous** local variation in tree height, canopy structure, and abundance of vines, depending on the site conditions of soil, climate, slope elevation, and local disturbance. One can find many locations in Southeast Asia where there are abundant woody vines and numerous connections between trees and similarly many Amazonian forests with few woody vines.
  4. A final theory differs from the others in suggesting that it is the presence of dipterocarp trees themselves that is driving the evolution of gliding species. ■According to this view, dipterocarp forests can be food-deserts for the animals that live in them. ■The animals living in dipterocarp forests that have evolved gliding consist of two main feeding groups: leaf eaters and carnivores that eat small prey such as insects and small vertebrates. ■For leaf-eating gliders the problem is not the absence of any leaves but the desert-like absence of edible leaves. ■Dipterocarp trees often account for 50 percent or more of the total number of canopy trees in a forest and over 95 percent of the large trees, yet dipterocarp leaves are unavailable to most vertebrate plant eaters because of the high concentration of toxic chemicals in their leaves. Many species of gliding animals avoid eating dipterocarp leaves and so must travel widely through the forest, bypassing the dipterocarp trees, to find the leaves they need to eat. And gliding is a more efficient manner of traveling between trees than descending to the ground and walking or else jumping between trees.
  5. Many carnivorous animals also may need to search more widely for food due to the lower abundance of insects and other prey. This is caused by dipterocarps' irregular flowering and fruiting cycles of two- to seven-year intervals, causing a scarcity of the flowers, fruits, seeds, and seedlings that are the starting point of so many food chains. The lower abundance of prey in dipterocarp forests forces animals such as lizards and geckos to move between tree crowns in search of food, with gliding being the most efficient means.

1.According to paragraph 1, what question about gliding species are researchers trying to answer

* + 1. Why it took millions of years for gliding animals to evolve in the tropical forests of Southeast Asia
    2. Why gliding animals, though rare in most tropical forests, have evolved in so many different families in Southeast Asia
    3. Why gliding animals evolved in many tropical forests in Southeast Asia before they evolved in any of the tropical forests elsewhere in the world
    4. Why gliding animals evolved only in tropical rain forests

2.According to paragraph 1, it is generally thought that the ability to glide is useful to forest-dwelling species because gliding

1. allows them to adapt to a wide variety of forest conditions
2. eliminates the need to travel long distances in search of food
3. provides a rapid, energy-efficient way of descending from the top of a tree to the ground
4. enables them to move through the forest without being exposed to predators on the ground

3.The word **scattered** in the passage is closest in meaning to

1. hard to find
2. seasonally available
3. widely separated
4. highly varied

4. All of the following are mentioned in paragraph 2 in support of the tall-trees hypothesis EXCEPT:

1. Tall trees make longer glides possible.
2. Tall trees make building up speed in a dive possible.
3. Tall trees make gliding from the middle of tree trunks possible.
4. Tall-tree forests have lower wind speeds.

5.Select the TWO answer choices that point to flaws in the tall-trees hypothesis, according to paragraph 2. To receive credit, you must select TWO answers.

1. Many gliding animals are unable to ascend to the tops of tall trees.
2. Gliding animals are not evenly distributed throughout the forests of the Southeast Asian region.
3. In Southeast Asia, many gliding animals are found in places where trees tend to be relatively short.
4. Many gliding animals begin their glides from positions midway up the trunks of trees.

6.The word **speculates** in the passage is closest in meaning to

1. concludes from evidence
2. recognizes
3. puts forward as a possibility
4. claims

7.Paragraph 3 implies which of the following ideas about forests in which there are abundant woody vines connecting tree crowns

1. The tree canopy is more even than it is in other forests.
2. In such forests, animals can move between trees by traveling on vines.
3. Such forests generally contain a wider diversity of animals than other forests do.
4. There are likely to be fewer predators on the ground in such forests than in other forests.

8.The word **tremendous** in the passage is closest in meaning to

1. seasonal
2. endless
3. unexpected
4. enormous

9.Paragraph 3 supports the idea that one problem with the broken-forest hypothesis is that

1. ecologists have found gliding animals in areas of Southeast Asia where trees are connected by vines and not found them in Amazonian forests where trees are not connected by vines
2. in Southeast Asia, the forests with the fewest woody vines connecting the tops of trees turn out to have the most gliding animals
3. according to ecologists in different regions of the world, gliding animals are as abundant and varied in some forests of Africa and the New World as they are in Southeast Asian forests
4. gliding is no easier in broken forests with an uneven canopy structure than it is in forests where the trees are all about the same height

10.According to paragraph 4, what special difficulty do leaf-eating animals face in a dipterocarp forest

1. Dipterocarp trees are less leafy than other canopy trees.
2. There is no efficient method of getting from one tree to another.
3. Most trees are very tall with leaves that are difficult to reach.
4. There is a large distance between trees that have edible leaves.

11.How does paragraph 5 relate to paragraph 4

1. Paragraph 5 shows that the food-desert theory introduced in paragraph 4 can account for only part of what needs to be explained.
2. Paragraph 5 explains why the author calls the theory set out in paragraph 4 the food-desert theory.
3. Paragraph 5 completes the account of the food-desert theory begun in paragraph 4.
4. Paragraph 5 outlines an alternative to the food-desert theory described in paragraph 4.

12.According to paragraph 5, what is responsible for the relative scarcity of insects and other prey in dipterocarp forests

1. The inability of insects and other prey to eat the toxic seeds, flowers, and fruits of dipterocarp trees
2. The efficiency with which lizards and geckos hunt their prey
3. The abundance of carnivorous animals in dipterocarp forests
4. Dipterocarps' irregular flowering and fruiting cycles

13.Look at the four squares that indicate where the following sentence could be added to the passage.

**For each group, a dipterocarp forest is like a desert in that food resources are few and far apart.**

Where would the sentence best fit Click on a square to add the sentence to the passage.

14.Drag your choices to the spaces where they belong. To review the passage, click on View Text. Answer Choices

1. One theory is that so many gliding species evolved in Southeast Asia because the forests are exceptionally tall, but there is evidence that calls that theory into question.
2. The fact that gliding animals are most abundant in the short-stature forests of China, Vietnam, and Thailand shows that gliding did not evolve as an adaptation to an environment of tall trees.
3. Ecologists have shown that the abundance of gliding animals in different regions of the world corresponds to variations in tree height, canopy structure, and abundance of vines.
4. The hypothesis that gliding evolved to compensate for a scarcity of vines linking tree canopies overlooks problematic evidence from both Southeast Asian and Amazonian forests.
5. In forests that are dominated by tall trees, jumping from tree to tree or descending to the ground may be a more efficient way of traveling through the forest than gliding.
6. Dipterocarp trees create an environment in which many species must travel widely to find food, and gliding may have evolved as a rapid and efficient way of moving between tree crowns.

**Reading 3 Habitat Selection**

Paragraph 1

Researchers who study habitat selection have proposed various models for the process. Marine biologist Peter F. Sale hypothesized the existence of a simple mechanism of habitat selection in fish that is based on levels of exploratory behavior. Sense organs monitor specific stimuli in the environment and send a summation of **pertinent** stimuli back to central-nervous-system centers, which regulate the amount of exploration. As the constellation of cues approaches some optimum level, exploratory behavior **ceases** and the animal stays where it is.

1. The word “**pertinent**” in the passage is closet in meaning to
2. important
3. selected
4. strong
5. relevant
6. According to paragraph 1, all of the following are processes that occur during exploratory behavior EXCEPT:
7. A favorable combination of cues are gathered.
8. Sense organs detect and record stimuli in the surrounding area.
9. Sense organs receive further directions from the central nervous system.
10. The central nervous system receives a summary of stimuli from the sense organs.
11. The word “**ceases**” in the passage is closet in meaning to
12. stops
13. decreases
14. succeeds
15. occurs

Paragraph 2

An alternative hypothesis is that an animal has a cognitive map of the ideal habitat and that its behavior is goal directed. However, working with a species of surgeonfish, Sale tested juveniles in laboratory tanks with various water depths and bottom covers under which fish could hide. Exploration time was least in the tank with shallow water and bottom cover and highest in the tank with shallow water and no bottom cover. In choice tests and field observations, most fish preferred shallow areas with bottom cover. Thus, Sale concluded, there is no need to suggest the inheritance of complex cognitive maps and goal-directed behaviors, rather, the animal simply moves around more in an unsuitable habitat and less in a suitable one.

1. In paragraph 2, why does the author discuss Sale’s research with a species of surgeonfish?
2. To demonstrate how animals distinguish suitable habitats from unsuitable ones
3. To give an example of an animal that shows little or no exploratory behavior during habitat selection
4. To challenge the hypothesis that animals have complex cognitive maps of their ideal habitat that guide their habitat selection
5. To provide evidence that fish prefer areas that are shallow and have covering under which to hide

Paragraph 3

Sale’s model still does not explain how the animal “knows” what is suitable and what is not, or how stimuli from multiple cues are **integrated**. Nor does it explain the role of photoperiod (the duration of the animal’s daily exposure to sunlight) in the response of dark-eyed juncos to photographs of their natural habitat. These wild-caught birds were presented a choice of viewing one of two 35-millimeter color slides showing different habitats. Birds kept in the lab under a winter photoperiod of nine hours of light and fifteen hours of darkness preferred (spent more time in front of) slides of their southern winter habitat. After day length was increased to fifteen hours of light and nine hours of darkness, the birds’ viewing preferences shifted to the northern summer habitat.

1. The word “**integrated**” in the passage is closet in meaning to
2. interpreted
3. produced
4. found
5. combined
6. According to paragraph 3, Sale’s model of habitat selection is unable to explain which of the following?
7. Why dark-eyed juncos’ interest in a particular habitat changes with the duration of daylight they are exposed to
8. Why the environment suitable for dark-eyed juncos in the winter differs from the environment suitable for them in the summer
9. Why only some species of animals respond to photographs of their natural habitats
10. Why birds studied in the lab behave differently than birds in the wild do
11. Paragraph 3 supports which of the following statements about dark-eyed juncos?
12. The habitat preference of dark-eyed juncos changes with the amount of daylight present.
13. Wild-caught dark-eyed juncos do not recognize photographs of their own habitat.
14. Dark-eyed juncos choose their habitat based on seasonal temperatures.
15. Artificial light affects dark-eyed juncos’ choice of habitat differently than does natural sunlight.

Paragraph 4

Social cues may also affect choice of habitat. Large juncos (usually males) dominate smaller individuals (usually females and juveniles) in wintering flocks. Biologist Ellen Ketterson explained the finding that females usually migrate farther south than males by hypothesizing that subordinate birds are forced to migrate farther to avoid competing with dominants. In their lab study, researchers E. Roberts and Peter Weigl found that during the short days (stimulating winter), small subordinate juncos showed the strongest preference for winter scenes.

1. According to paragraph 4, what reason has been suggested for why female juncos often migrate farther south than do male juncos?
2. To avoid the colder temperatures farther north
3. To provide safer habitats for their juveniles
4. To avoid having to compete with males
5. To find habitats having the longest days

Paragraph 5

Risk of predation and competition are other factors that may affect habitat use. Hairy-footed gerbils live in vegetated islands in a sea of sand in the Namib Desert of southern Africa. Habitat use was determined by tracks in the sand and by how quickly they gave up feeding at stations containing seeds mixed with sand. Gerbils preferred sites around bushes or grass clumps to open areas and were more active on new-Moon nights than on full-Moon nights. They also gave up feeding at seed trays sooner in open areas and on full-Moon nights. These differences were likely caused by greater risk of predation in open areas and when the Moon was full. When striped mice, a close competitor of the gerbil, were removed, gerbils increased foraging activity, especially in the grass clumps.

1. According to paragraph 5, why do hairy-footed gerbils prefer to feed in bushes and grass clumps?
2. There is more food available there.
3. There is less competition there from striped mice.
4. There is more shade there from the heat of the desert.
5. There is less danger there of being harmed by a predator.

Paragraph 6

The immediate cues to which animals respond when selecting a habitat may not be the same as the ultimate factors that have brought about the evolution of the response. For example, the blue tit, a European bird, lives in oak woodlands where most of its preferred food is found. But the blue tit establishes its territory each year before leaves and caterpillars (its staple food) have even appeared, so it must be using some other cue, such as the shape of the trees, to select its habitat. In fact, we know little about the signals that animals respond to when choosing their habitat. And in migratory species, it is not even clear when in the life cycle a choice of habitat is made. One study found that breeding sites may be selected in late summer or fall before migration, rather than in the spring, as is usually assumed.

1. According to paragraph 6, which of the following is true about habitat selection by the blue tit?
2. It selects a habitat having the tallest trees.
3. It selects a habitat where there are no caterpillars to eat the leaves.
4. It selects its territory each year in spring.
5. It selects its habitat before its preferred food appears in the area.
6. Paragraph 6 supports which of the following statements about scientists’ knowledge of habitat selection?
7. Scientists have successfully identified most of the immediate factors that animals respond to in choosing their habitats.
8. Scientists have determined the seasons in which most animal species choose their habitats.
9. Scientists know that evolution has led animals to ignore cues in their environment when choosing habitats.
10. Scientists still have much to learn about the cues to which animals respond in choosing their habitats.

Paragraphs 3 and 4

Sale’s model still does not explain how the animal “knows” what is suitable and what is not, or how stimuli from multiple cues are integrated. Nor does it explain the role of photoperiod (the duration of the animal’s daily exposure to sunlight) in the response of dark-eyed juncos to photographs of their natural habitat. These wild-caught birds were presented a choice of viewing one of two 35-millimeter color slides showing different habitats. Birds kept in the lab under a winter photoperiod of nine hours of light and fifteen hours of darkness preferred (spent more time in front of) slides of their southern winter habitat. ■After day length was increased to fifteen hours of light and nine hours of darkness, the birds’ viewing preferences shifted to the northern summer habitat. ■Social cues may also affect choice of habitat. ■Large juncos (usually males) dominate smaller

individuals (usually females and juveniles) in wintering flocks. ■Biologist Ellen Ketterson explained the finding that females usually migrate farther south than males by hypothesizing that subordinate birds are forced to migrate farther to avoid competing with dominants. In their lab study, researchers E. Roberts and Peter Weigl found that during the short days (stimulating winter), small subordinate juncos showed the strongest preference for winter scenes.

1. Look at the four squares [■] that indicate where the following sentence could be added to the passage.

### However, photoperiod is not the only factor in the habitat selection of this bird species.

### Where would the sentence best fit? Click on a square [■] to add the sentence to the passage.

1. Directions: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some answer choices do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage. This question is worth 2 points.

Drag your choices to the spaces where they belong. To review the passage, click on View Text.

A. Peter F. Sale argued against the hypothesis that animals have cognitive maps of their ideal habitat by demonstrating that animals explore less in suitable habitats than in unsuitable ones.

B Animals kept in the lab easily recognized images of their natural habitats during different seasons of the year.

C Researchers have demonstrated that migratory species of birds select their breeding habitats at a point in their life cycle when they are ready to reproduce.

D Peter F. Sale’s model of habitat selection explained how animals distinguish suitable habitats from unsuitable ones as they integrate stimuli from multiple cues in the environment.

E Laboratory experiments and field observations showed that day length, dominance relation within species, risk of predation, and competition for food play a role in habitat selection.

F The fundamental elements that determine habitat selection may differ from the immediate cues to which the animals respond

**Writing：**

Do you agree or disagree with the following statement?

**Governments should spend more money on sponsoring art than on athletics.**

Use specific reasons and examples to support your idea.

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