

Questions 12-22 are based on the following passage and supplementary material.

### A Study in Arctic Migration

Each year, many species of shorebirds migrate from locations in the Southern Hemisphere to their breeding grounds in the **12** Arctic. A journey of thousands of kilometers that requires frequent stops to fuel up. The risk of death is significant, and the Arctic is an inhospitable region for most of the **13** year, yet the shorebirds never failing to make their annual pilgrimage.

Come spring, the Arctic becomes a suitable habitat, providing many benefits: an abundant supply of food, permanent daylight, ample nesting space, fewer pathogens, and fewer predators to invade the nests of these ground-dwelling birds. These benefits are found in all regions of the **14** Arctic regardless of latitude yet some shorebirds continue on to the high Arctic. If these birds are simply looking for open space and enough food to eat, then why not end their long journey in the low Arctic? Continuing on to the north requires more fuel and carries an even greater risk of **15** mortality if the birds continue on. The most likely reason certain shorebirds head to the high Arctic is to escape their predators.

12

- A) NO CHANGE
- B) Arctic, a
- C) Arctic; a
- D) Arctic; which is a

13

- A) NO CHANGE
- B) year, the shorebirds never fail
- C) year, yet the shorebirds never fail
- D) year; yet the shorebirds never failing

14

- A) NO CHANGE
- B) Arctic, regardless of latitude
- C) Arctic, regardless of latitude,
- D) Arctic: regardless of latitude,

15

- A) NO CHANGE
- B) mortality if they keep going.
- C) mortality and death.
- D) mortality.

[1] A four-year study by a team of Canadian scientists, headed by student Laura McKinnon of the Université du Québec, **16** provide evidence in support of this hypothesis. [2] The scientists created artificial nests that resembled a typical shorebird's nest. [3] Then each year, during the shorebirds' breeding season, forty of the nests were placed in each of seven locations that ranged in latitude from the low Arctic to the high Arctic. [4] Each nest had been baited with four **17** quail egg's, which are similar in size and shape to a shorebird's eggs. [5] The scientists returned to the nests many times over nine days to check how many eggs remained in the nests. [6] A nest was said to have survived if, at the end of the nine days, it contained at least one undisturbed quail egg.

**18****16**

- A) NO CHANGE
- B) provides
- C) are providing
- D) have provided

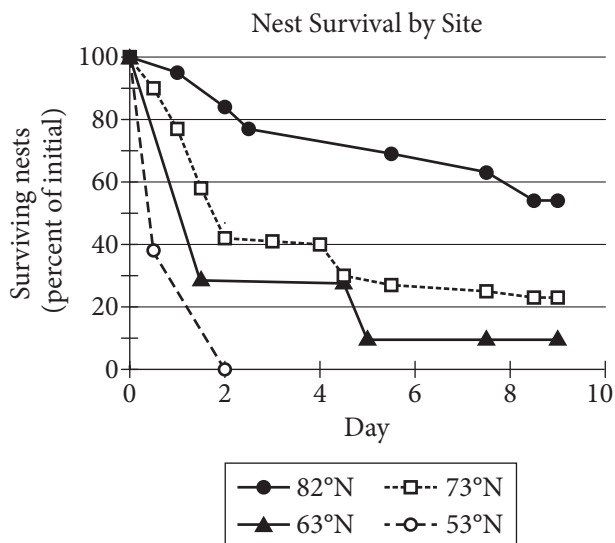
**17**

- A) NO CHANGE
- B) quail eggs,
- C) quail eggs',
- D) quails eggs,

**18**

To make this paragraph most logical, sentence 5 should be placed

- A) where it is now.
- B) after sentence 1.
- C) after sentence 2.
- D) after sentence 6.



Adapted from L. McKinnon et al., "Lower Predation Risk for Migratory Birds at High Latitudes." ©2010 by American Association for the Advancement of Science.

The figure shows the results for the nesting **19** sites, furthermore, at four of the seven locations, averaged over the four years of the study. The **20** number of predators invading the nests increased over time at each location. This result confirmed that predators were present at the researchers' chosen locations. The researchers found that the percent of **21** surviving nests was greater at locations having higher latitudes. For example, on day 9, approximately 55 percent of nests were found to have survived at the 82°N location compared to approximately 10 percent of nest survival at the 63°N location. This

19

- A) NO CHANGE
- B) sites
- C) sites, however,
- D) sites, in addition,

20

Which choice makes the writer's description of data represented in the figure most accurate?

- A) NO CHANGE
- B) numbers of predators invading the nests decreased
- C) percent of surviving nests decreased
- D) percent of surviving nests increased

21

Which choice makes the writer's description of data represented in the figure most accurate?

- A) NO CHANGE
- B) surviving nests was smaller
- C) surviving nests remained the same
- D) eggs was much lower

study provides the first known quantifiable evidence for the previously unanswered question of why shorebirds continue on to the high Arctic. **22** The shorebirds risk their own survival by flying farther. Their offspring have a better chance of survival because fewer predators invade the nests.

22

Which choice most effectively combines the underlined sentences?

- A) Although the shorebirds risk their own survival by flying farther, their offspring have a better chance of survival because fewer predators invade the nests.
- B) The shorebirds risk their own survival because they fly farther; in addition, their offspring have a better chance of survival because fewer predators invade the nests.
- C) Flying farther and risking their own survival is what the shorebirds do, and this gives their offspring a better chance of survival because fewer predators invade the nests.
- D) The shorebirds' offspring have a better chance of survival, fewer predators invade their nests, and they risk their own survival by flying farther.