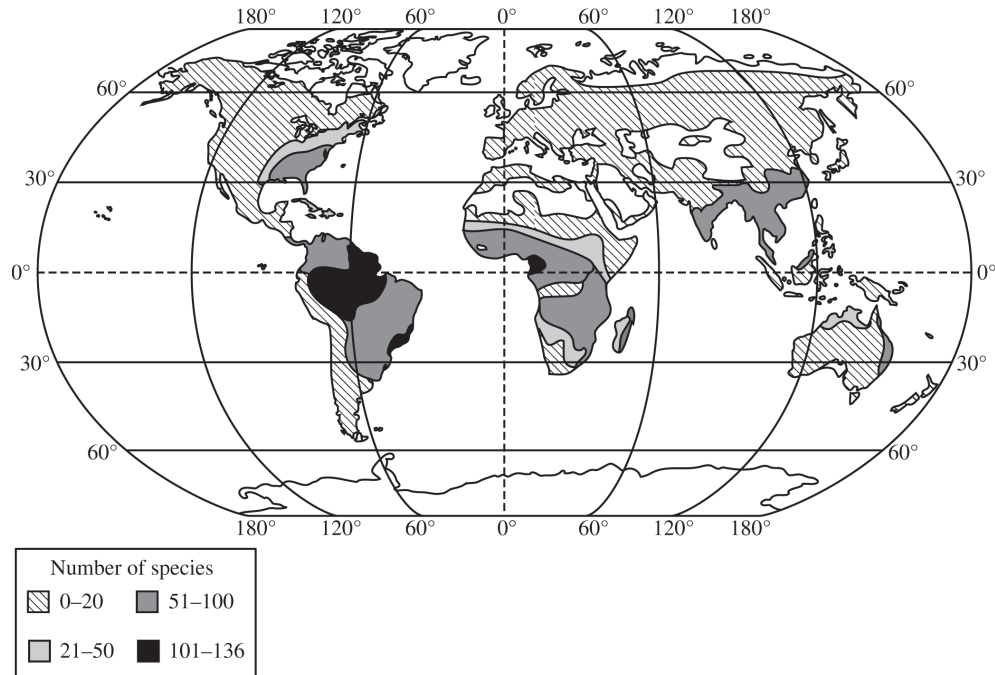


## GLOBAL AMPHIBIAN SPECIES RICHNESS



2. Biodiversity around the world is changing as a result of anthropogenic influences.

(a) The map represents species richness of amphibians around the globe. Use the map to answer the following questions.

- (i) **Identify** the latitudinal range with the greatest amphibian species richness.
  - (ii) **Identify** what biome this range most likely represents.
  - (iii) **Describe** one reason amphibian species richness would tend to be highest in this region.
- (b) There are many environmental threats facing amphibians today, such as deforestation. **Describe** one possible anthropogenic reason for deforestation.
- (c) Many factors influence biodiversity.
- (i) **Explain** how the species richness of an ecosystem influences its response to environmental stressors.
  - (ii) **Explain** why amphibian biodiversity is declining globally, other than from deforestation.
- (d) Currently, wildlife species are going extinct at an alarming rate. To combat this threat, governments around the world have enacted legislation and signed treaties to protect species threatened by extinction.

- (i) **Identify** one specific piece of legislation that has been designed to protect species threatened by extinction.
  - (ii) **Explain** how the requirements of the legislation identified in part (d)(i) specifically protect species threatened by extinction.
- (e) A town is considering selling an undeveloped parcel of land along its border for residential developments. The square parcel of land consists of approximately 30% wetland and 70% pasture. The wetland runs through the middle of the property for its entire width and is home to three native frog species.
- (i) **Propose** a viable solution that will result in the protection of the native frog species while still allowing for maximum profit of the property development.
  - (ii) **Justify** the solution proposed in (e)(i) by describing a potential advantage of the plan, other than frog protection.

Begin your response to this question at the top of a new page in the separate Free Response booklet and fill in the appropriate circle at the top of each page to indicate the question number.