

Volume 35, Number 1, September 2022

Answers

Ancient DNA

Looking into plant extinction

Answers to practice exam questions on page 18

Annabelle de Vries

- 1 Any three of the following
 - (Find) base sequence of mRNA
 - (Find) amino acid sequence of encoded proteins
 - (Find) frequency of measurable or observable features
 - (Find) number of polymorphic loci

- 2 Degradation of DNA involves hydrolytic enzymes / hydrolysis of DNA controlled by enzymes.
Enzyme-controlled reactions occur in solution, so free water needed.
Enzyme-controlled reaction occur (very) slowly / do not occur at low/freezing temperatures.

Body shape evolution: Adaptation improves survival chances in vertebrates

Answers to practice exam questions on page 38

Alice Maher

- 1 Any three of the following.
 - Titanosaur is quadrupedal, which balances body weight evenly.
 - Titanosaur has a large torso and short spine that reduces stress due to large size.
 - Human is bipedal, short torso increases stability.
 - Lumbar and thoracic curves in human spine bring centre of gravity over the feet.

- 2 They have the same function – flight.
 - But do not have a similar anatomy/are not developed from the same structures.
 - Are the result of convergent evolution/are not evolved from a common ancestor.