

Exercise walk-through

Endangered Species ■ 9.9

eXercise

You must be able to

- describe causes of endangerment (**HIPPO**)
- explain conservation strategies
- link small populations to extinction risk

Method — Causes of endangerment (HIPPO)

- **H**abitat loss (biggest cause).
- **I**nvasive species.
- **P**ollution.
- **P**opulation (human) growth.
- **O**verexploitation (hunting, fishing).

Method — Small populations are at risk

A small population has **low genetic diversity** and is vulnerable to disease, inbreeding, and random events, raising **extinction risk**.

Method — Conservation strategies

- **Protected areas** and habitat restoration.
- **Laws** (e.g. Endangered Species Act, CITES banning trade).
- **Captive breeding** and reintroduction.
- **Wildlife corridors**.

Method — A worked link

A species losing its habitat to farmland has fewer, smaller, isolated populations, which lose genetic diversity and become more likely to go extinct.

Practice 2.1 ■ 1 mark

What is the biggest cause of species endangerment?

Solution 2.1

Method: Causes of endangerment (HIPPO)

Worked steps

Habitat loss **B1**.

Practice 2.2 ■ 1 mark

State one conservation strategy.

Solution 2.2

Worked steps

Any one: protected areas, laws, captive breeding, corridors **B1**.

Practice 2.3 ■ 1 mark

Why is a small population at higher extinction risk?

Solution 2.3

Method: Small populations are at risk

Worked steps

It has low genetic diversity and is vulnerable to disease, inbreeding, and chance events **B1**.

Exam-style 3.1 ■ 1 mark

In the HIPPO acronym, the first “P” stands for

A predators

B pollution

C photosynthesis

D phosphorus

Solution 3.1

A predators

B pollution 

C photosynthesis

D phosphorus

Worked steps

B — pollution.

Exam-style 3.2 ■ 2 marks

A species is endangered by habitat loss and hunting.

- (a) Name two conservation strategies that could help.
- (b) Explain why its small remaining population is vulnerable.

Solution 3.2

Method: Conservation strategies

Worked steps

(a) Any two: protected areas/habitat restoration, laws banning hunting/trade, captive breeding **B1 B1**. (b) A small population has low genetic diversity, so it is vulnerable to disease, inbreeding, and random events that could wipe it out **M1 A1**.

Exam-style 3.3 ■ 2 marks

Explain how international agreements like CITES help protect endangered species.

Solution 3.3

Method: Conservation strategies

Worked steps

CITES restricts or bans international trade in threatened species, reducing the demand that drives overexploitation, so fewer are hunted or collected **M1** **A1**.