AP ENVIRONMENTAL SCIENCE • EXERCISE SHEET

9.9 Endangered Species

Name: _____ Class: _____ Date: _____ **Total: 10 marks**

Objective

Build the skills to answer exam questions on **endangered species**.

You must be able to:

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

1 Worked examples

Study these first. Each one shows the method for a question type used later —follow the steps and you can do the Practice and Exam-style questions yourself.

Causes of endangerment (HIPPO)

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

Small populations are at risk

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

Conservation strategies

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

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.

2 Practice

Now apply the methods above.

2.1 What is the biggest cause of species endangerment? [1]

2.2 State one conservation strategy. [1]

2.3 Why is a small population at higher extinction risk? [1]

3 Exam-style questions

3.1 In the HIPPO acronym, the first ”P” stands for [1]

- **A** predators
- **B** pollution
- **C** photosynthesis
- **D** phosphorus

3.2 A species is endangered by habitat loss and hunting.

(a) Name two conservation strategies that could help. [2]

(b) Explain why its small remaining population is vulnerable. [2]

3.3 Explain how international agreements like CITES help protect endangered species. [2]

4 Go further

You are now ready for the real exam questions on this subtopic:

- work through the **9.9 Endangered Species** lesson on the **Learn** page;
- read the **Endangered Species** section of the AP Environmental Science handout on the **Know** page.

Solutions

2.1 Habitat loss.

2.2 Any one: protected areas, laws, captive breeding, corridors.

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

3.1 B —pollution.

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

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