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PCTB Board -- Punjab & AJK, English Medium

CHAPTER 10

The Silent Predator and the Majestic Prey

Key Concepts • Definitions • Short & Long Questions • MCQs • Diagrams • Exam Tips



Unit 10: The Silent Predator and the Majestic Prey -- Snow Leopard and Markhor

This unit presents 'The Silent Predator and the Majestic Prey -- Snow Leopard and Markhor', a descriptive and informative essay about two extraordinary animals of Pakistan's high mountains: the elusive snow leopard and the majestic markhor, Pakistan's national animal.

The passage describes each animal's appearance, habitat, and adaptations, explains their predator-prey relationship, and examines both the threats they face (poaching, habitat destruction, climate change) and the conservation efforts -- such as trophy hunting programmes and herder compensation schemes -- that are helping protect them.

These notes summarise the passage as given in the textbook and provide comprehension questions, vocabulary, and exam-oriented material for this unit, including the skill-based Reading, Vocabulary (connotative vs denotative meanings), Grammar (hyphenated nouns/adjectives, -ough words), Oral Communication, and Writing (descriptive composition) sections that accompany it.

Learning Objectives

- Give an informed personal and analytical response to a descriptive and informative text
- Read to analyse descriptive/argumentative essays
- Distinguish between the connotative and denotative meanings of words, both similar and dissimilar, and their appropriate use in a variety of writing and texts
- Acquire and use appropriate words and phrases for reading, writing, speaking, and listening; independently gather vocabulary when considering a word or phrase important for comprehension or expression



- Use hyphens correctly in hyphenated nouns and adjectives, and in words with the letter string '-ough'
- Write a descriptive composition moving from general to specific, using the process approach of brainstorming, mind mapping, and writing a first draft
- Demonstrate attentive listening skills to respond orally with standard pronunciation and intonation

Key Concepts

Introduction: Two Extraordinary Mountain Animals

In the high-altitude regions of Pakistan, where the peaks of the Himalayas, Karakoram, and Hindu Kush touch the sky, two extraordinary animals have made these rugged landscapes home for centuries. The snow leopard and the markhor, predator and prey, represent the delicate balance of nature in some of the most remote areas of the world.

Both species are not only fascinating in their own outlook but are also symbols of Pakistan's wild beauty and the need for conservation.

The Ghost of the Mountains -- Snow Leopard

The snow leopard is one of the most elusive animals on the planet. With its thick, spotted coat and piercing blue eyes, it blends perfectly with the rocky mountains. Often referred to as the 'Ghost of the Mountains', the snow leopard roams at altitudes as high as 5,500 metres, surviving the cold with its dense fur and muscular build.

Snow leopards are highly adapted to their mountain habitats: their wide, fur-covered paws allow them to walk on snow without sinking, and their long tails help them balance on narrow ledges. As a top predator, the snow leopard's disappearance would create a ripple effect, disturbing populations of other animals and the overall health of the mountain environment.

The Majestic Markhor -- A National Symbol

The markhor, with its impressive corkscrew-shaped horns, is Pakistan's national animal. Found in the mountainous regions of Khyber Pakhtunkhwa, Gilgit-



Baltistan, Balochistan, and parts of Azad Jammu and Kashmir, the markhor is perfectly adapted to steep and rocky terrain, with wide hooves for climbing cliffs and a coat that changes with the seasons.

The markhor is a herbivore, feeding on grasses, shrubs, and leaves at altitudes of up to 3,600 metres. Its name means 'snake-eater' in Persian, referencing the twisting horns of males, which can grow up to 1.5 metres, and it holds a special place in Pakistan's cultural and environmental heritage.

A Fragile Balance -- Predator and Prey

The relationship between the snow leopard and the markhor is a classic example of predator and prey. Snow leopards rely on markhors for food, and markhors have evolved to escape these powerful predators by living in steep, rocky areas where they can quickly flee.

However, human activities have upset this delicate balance. Poaching, habitat destruction, and climate change have reduced populations of both species -- markhors hunted for their valuable horns, and snow leopards killed by herders trying to protect their livestock.

Conservation Success and Future Challenges

Despite these threats, both species have benefited from successful conservation efforts in Pakistan. Organisations such as the Snow Leopard Foundation and WWF-Pakistan have worked to protect these species, and in areas like Chitral National Park and the Toshi Game Reserve, local communities and the government have established trophy hunting programmes that generate revenue for wildlife conservation.

Efforts to reduce human-leopard conflict, such as compensating herders who lose livestock to snow leopard attacks, have reduced killings of these endangered cats. Despite these successes, both species remain vulnerable, and continued efforts are needed to protect their habitats and prevent illegal hunting.

The Role of Pakistan's Mountain Ecosystems

The survival of the snow leopard and the markhor is essential for the health of Pakistan's mountain ecosystems. Snow leopards keep herbivore populations like



the markhor in check, ensuring plant life remains balanced, while markhors are critical for maintaining vegetation on mountain slopes, preventing overgrazing and soil erosion.

Without these two species, the entire ecosystem would be at risk. Protecting them is not only about saving two magnificent animals but also preserving the very environment they inhabit.

Theme

The central theme of the text is the delicate balance of nature through the predator-prey relationship between the snow leopard and the markhor in Pakistan's mountains. Both species are crucial for maintaining the ecosystem's health but face threats from poaching, habitat loss, and climate change. The markhor, as Pakistan's national animal, also holds cultural significance. Conservation efforts by organizations like the Snow Leopard Foundation and WWF-Pakistan aim to protect these animals and preserve the fragile ecosystem. This theme highlights the importance of biodiversity, adaptation, and human responsibility in conservation.

Important Definitions (Glossary)

agility

the ability to move quickly and easily

conservation

the protection of the natural environment

ecosystem

all the plants and living creatures in a particular area considered in relation to their physical environment

elusive

difficult to find, define or achieve

herbivore

any animal that eats only plants

heritage



the history, traditions, buildings and objects that a country or society has had for many years and that are considered an important part of its character

magnificent

extremely attractive and impressive; deserving praise

predator

an animal that kills and eats other animals

preserve

to keep a particular quality, feature, etc.; to make sure that something is kept

ripple

a small wave on the surface of a liquid, especially water in a lake, etc.

rugged

not level or smooth and having rocks rather than plants or trees

vulnerable

weak and easily hurt physically or emotionally

Key Facts

Item	Detail
Text type	Descriptive and informative essay
Snow leopard's nickname	'Ghost of the Mountains'
Snow leopard's max altitude	Up to 5,500 metres
Markhor's status	Pakistan's national animal
Markhor's max altitude	Up to 3,600 metres
Meaning of 'markhor' (Persian)	'Snake-eater' -- a reference to its twisting horns
Markhor horn length (males)	Can grow up to 1.5 metres
Key conservation organisations	Snow Leopard Foundation, WWF-Pakistan
Key threats to both species	Poaching, habitat destruction, climate change



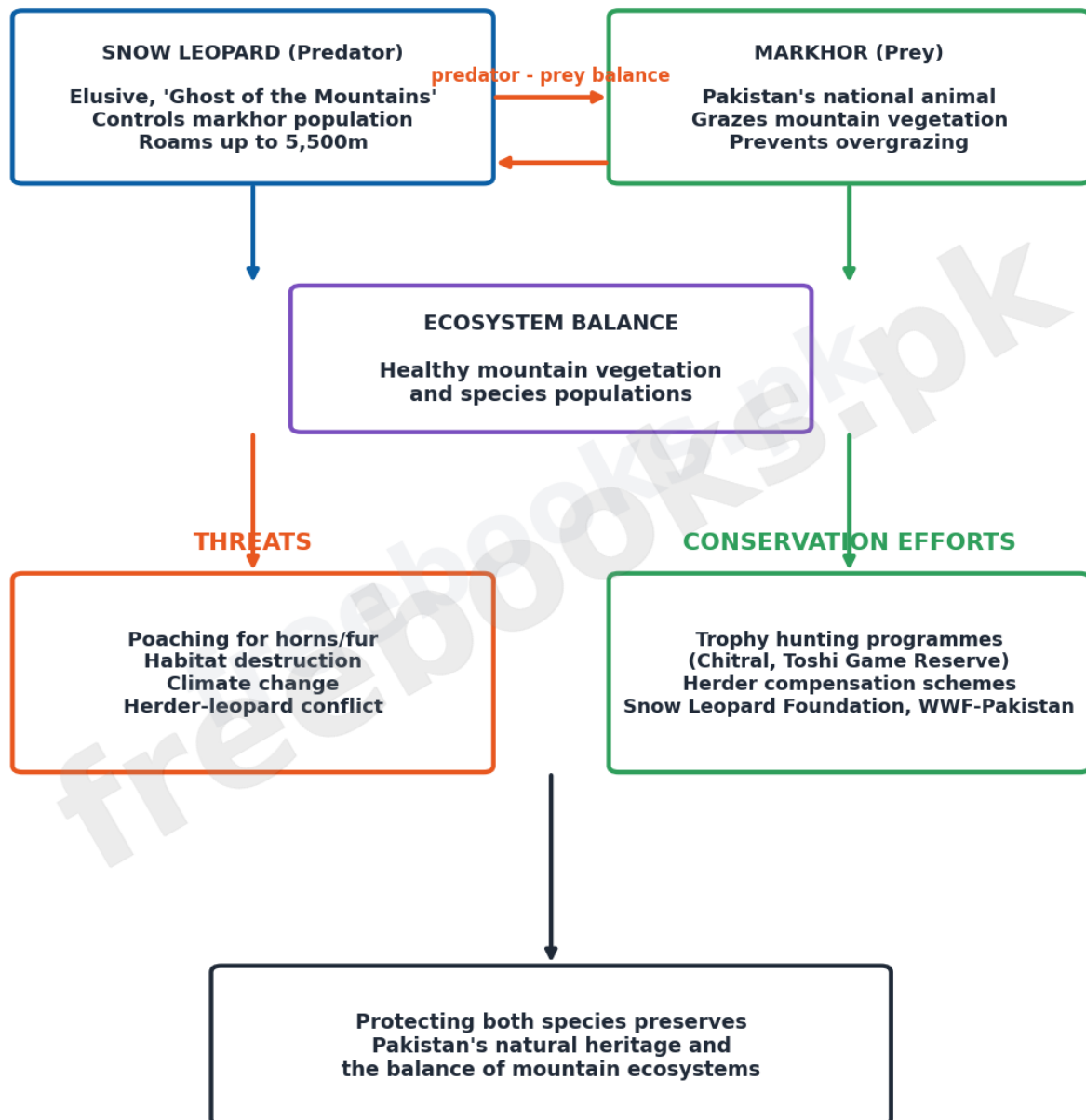
Example conservation programme	Trophy hunting programmes (e.g. Chitral National Park, Toshi Game Reserve)
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Diagram

The Fragile Balance -- Snow Leopard and Markhor: A purely textual/ schematic diagram showing the snow leopard (predator) and the markhor (prey) as two labelled boxes connected by arrows representing their ecological relationship, with additional boxes for threats (poaching, habitat loss, climate change) and conservation efforts (trophy hunting programmes, herder compensation) -- no illustrated animal figures.



The Fragile Balance -- Snow Leopard and Markhor



Short Questions & Answers

Why is the predator-prey relationship between the snow leopard and the markhor important for the ecosystem?

As a top predator, the snow leopard keeps herbivore populations like the markhor in check, preventing overgrazing and ensuring plant life on the mountain slopes remains balanced.



How do the snow leopard's adaptations help it survive in the mountains?

Its thick, spotted coat and dense fur help it survive the cold, while its wide, fur-covered paws allow it to walk on snow without sinking, and its long tail helps it balance on narrow ledges.

How is the markhor adapted to living in mountainous regions?

The markhor has wide hooves that help it climb cliffs with ease, and its coat changes with the seasons, providing warmth in winter and shedding in summer.

What are the benefits of community-led conservation programmes like trophy hunting?

They allow foreign hunters to hunt a limited number of markhors under strict regulations, generating revenue used for wildlife conservation and providing financial incentives for local people to protect the animals.

What might happen to the mountain ecosystem if the snow leopard disappeared?

Its disappearance would create a ripple effect, disturbing the populations of other animals -- particularly allowing herbivores like the markhor to increase unchecked, leading to overgrazing and environmental damage.

How do human activities threaten the balance between the snow leopard and the markhor?

Poaching, habitat destruction, and climate change have reduced populations of both species -- markhors hunted for their horns, and snow leopards killed by herders protecting their livestock.

What role do organisations like the Snow Leopard Foundation and WWF-Pakistan play?

They work tirelessly to protect these species through conservation programmes, habitat protection, and initiatives that reduce human-wildlife conflict.

How has human-leopard conflict been reduced?

By compensating herders who lose livestock due to snow leopard attacks and raising awareness of the species' importance, conservationists have reduced the killings of these endangered cats.

Why is the markhor culturally significant to Pakistan?



The markhor is Pakistan's national animal and holds a special place in the country's cultural and environmental heritage, with its distinctive corkscrew-shaped horns.

What is the central theme of this unit?

The central theme is the delicate balance of nature through the predator-prey relationship between the snow leopard and the markhor, and the importance of biodiversity, adaptation, and human responsibility in conservation.

Long Questions & Answers

Describe the snow leopard and the markhor, including their key adaptations to mountain life.

What does the snow leopard look like and where does it live?

It has a thick, spotted coat and piercing blue eyes that help it blend with the rocky mountains, and it roams at altitudes as high as 5,500 metres, earning it the nickname 'Ghost of the Mountains'.

What physical adaptations help the snow leopard survive?

Its wide, fur-covered paws allow it to walk on snow without sinking, and its long tail helps it balance on narrow ledges while hunting in steep terrain.

What does the markhor look like and where does it live?

The markhor has impressive corkscrew-shaped horns and is found in the mountainous regions of Khyber Pakhtunkhwa, Gilgit-Baltistan, Balochistan, and Azad Jammu and Kashmir.

What physical adaptations help the markhor survive?

Its wide hooves help it climb cliffs with ease, and its coat changes with the seasons, providing warmth in winter and shedding in summer as it grazes at altitudes up to 3,600 metres.



Explain the threats facing the snow leopard and the markhor, and the conservation efforts protecting them.

What threats have reduced populations of both species?

Poaching, habitat destruction, and climate change have reduced populations of both species -- markhors hunted for their valuable horns, and snow leopards killed by herders protecting livestock.

How do trophy hunting programmes help conservation?

Programmes in areas like Chitral National Park allow foreign hunters to hunt a limited number of markhors under strict regulations, with revenue used for wildlife conservation and incentives for local communities.

How has human-leopard conflict been addressed?

Conservationists have reduced killings of snow leopards by compensating herders who lose livestock to attacks and by raising awareness of the species' ecological importance.

Why do both species remain vulnerable despite these successes?

Continued threats from illegal hunting and habitat loss mean ongoing efforts are still needed to fully protect their habitats and ensure long-term population recovery.

Multiple Choice Questions (MCQs)

What might be the long-term impact on the ecosystem if the snow leopard were to become extinct? (A) The population of herbivores like markhor would increase, leading to overgrazing (B) The markhor population would decrease due to a lack of protection (C) The ecosystem would become healthier without predators (D) The environment would remain unchanged

Correct answer: (A) The population of herbivores like markhor would increase, leading to overgrazing. Without the snow leopard controlling herbivore numbers,



markhor populations would increase, leading to overgrazing and ecosystem imbalance.

How do community-based conservation efforts, such as trophy hunting, benefit both wildlife and local people? (A) They reduce human-wildlife conflict by eliminating predators (B) They generate income for locals and fund wildlife protection efforts (C) They help introduce foreign species into local ecosystems (D) They allow uncontrolled hunting, reducing animal populations

Correct answer: (B) They generate income for locals and fund wildlife protection efforts. Trophy hunting programmes generate revenue used for wildlife conservation and provide financial incentives for local communities.

What lesson can be learned from the successful conservation efforts of the snow leopard and the markhor? (A) Conservation only works if predators are removed from the ecosystem (B) Animals can survive without human intervention (C) Involving local communities in conservation efforts leads to better outcomes (D) Conservation is not necessary for naturally strong species

Correct answer: (C) Involving local communities in conservation efforts leads to better outcomes. The text shows that community involvement, through programmes like trophy hunting and herder compensation, leads to more effective conservation outcomes.

Why is it important to maintain the balance between predator and prey in ecosystems like those of the snow leopard and the markhor? (A) To increase tourism in mountain regions (B) To ensure that predators do not starve (C) To keep herbivore populations in check and protect vegetation (D) To help predators dominate the ecosystem

Correct answer: (C) To keep herbivore populations in check and protect vegetation. Maintaining this balance keeps herbivore populations in check, preventing overgrazing and protecting mountain vegetation.

What is one potential drawback of trophy hunting programmes, even when they help conservation efforts? (A) They may lead to uncontrolled hunting of species (B) They only focus on predators like the snow leopard (C) They may prioritise financial gain over the welfare of animals (D) They do not involve local communities in any way



Correct answer: (C) They may prioritise financial gain over the welfare of animals. A potential concern with trophy hunting programmes is that they may prioritise financial gain over animal welfare, even while funding conservation.

What is the snow leopard often referred to as? (A) The King of the Mountains (B) The Ghost of the Mountains (C) The Silent Hunter (D) The Mountain Guardian

Correct answer: (B) The Ghost of the Mountains. The snow leopard is often referred to as the 'Ghost of the Mountains' due to its elusive nature.

What does the name 'markhor' mean in Persian? (A) Mountain climber (B) Snake-eater (C) Horn bearer (D) Rock dweller

Correct answer: (B) Snake-eater. The name 'markhor' means 'snake-eater' in Persian, referencing its twisting, snake-like horns.

Which organisations are mentioned as working to protect the snow leopard and markhor? (A) UNESCO and WHO (B) Snow Leopard Foundation and WWF-Pakistan (C) UNICEF and UNDP (D) IUCN and FAO only

Correct answer: (B) Snow Leopard Foundation and WWF-Pakistan. The Snow Leopard Foundation and WWF-Pakistan are mentioned as organisations working to protect these species.

What role does the markhor play in maintaining mountain ecosystems? (A) It has no ecological role (B) It preys on smaller animals (C) It prevents overgrazing and soil erosion by controlling vegetation (D) It only affects the ecosystem negatively

Correct answer: (C) It prevents overgrazing and soil erosion by controlling vegetation. Markhors are critical for maintaining vegetation on mountain slopes, which prevents overgrazing and soil erosion.

What is the central theme of this unit? (A) The history of Pakistan's national parks (B) The delicate balance of nature through the predator-prey relationship and the need for conservation (C) The rules of trophy hunting (D) The geography of the Himalayas

Correct answer: (B) The delicate balance of nature through the predator-prey relationship and the need for conservation. The theme centers on the delicate



ecological balance between the snow leopard and markhor, and the importance of conservation.

Quick Revision Summary

- The snow leopard and markhor are two extraordinary animals of Pakistan's high mountains, representing a predator-prey relationship
- The snow leopard ('Ghost of the Mountains') is elusive, roams up to 5,500m, and is adapted with fur-covered paws and a long balancing tail
- The markhor is Pakistan's national animal, a herbivore with corkscrew horns, adapted with wide hooves and a seasonal coat
- Their name origins: 'markhor' means 'snake-eater' in Persian, referencing its twisted horns
- Human activities (poaching, habitat destruction, climate change) threaten both species
- Conservation efforts include trophy hunting programmes and herder compensation schemes
- Both species are essential for mountain ecosystem health -- snow leopards control herbivore numbers; markhors prevent overgrazing
- Theme: the fragile balance of nature and the importance of human responsibility in conservation

Exam Tips

- Learn the glossary words with their exact textbook meanings -- synonym-in-context and spelling MCQs are drawn directly from unit glossaries
- Memorise specific facts and figures (5,500m for snow leopards, 3,600m and 1.5m horns for markhors, organisation names) since MCQs often test these details
- Be ready to explain both animals' adaptations separately, and then explain how their predator-prey relationship maintains ecosystem balance
- Practice distinguishing connotative and denotative meanings of words like 'elusive', 'vulnerable', and 'heritage' using context clues
- Review hyphenation rules for compound nouns/adjectives (e.g. well-known, part-time) and practice pronunciations of '-ough' words (though, through, rough, enough, thought)



- When answering 'why is X important for the ecosystem' questions, structure your answer around cause (the species' role) and effect (what happens without it)

