DE 24 HOURS





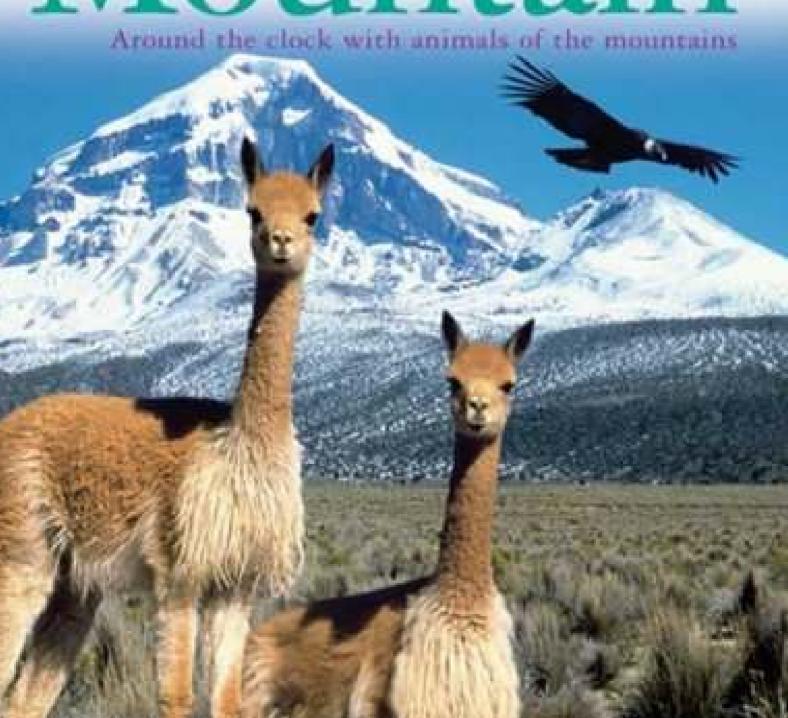








Mountain



Exercise 24 Hours Mountain















DK

LONDON, NEW YORK, MUNICH, MELBOURNE, and DELHI

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Published in the United States in 2007 by DK Publishing 375 Hudson Street New York, New York 10014

06 07 08 09 10 10 9 8 7 6 5 4 3 2 1

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A catalog record for this book is available from the Library of Congress.

ISBN-13: 978-0-7566-2215-2 ISBN-10: 0-7566-2215-8

Color reproduction by Colourscan, Singapore Printed and bound by L. Rex Printing Co. Ltd., China

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Welcome to the Andes,





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10:00 am Morning

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A mountain is a harsh environment, yet many animals thrive up on the slopes. Spend 24 hours with some of them and discover how they eat, sleep, and survive on the tough terrain.











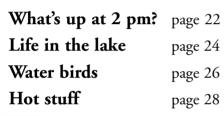




the longest mountain range in the world.



2:00 pm Afternoon





6:00 pm Dusk

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10:00 pm Night

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24:00 hours



In 24 Hours Mountain

we spend a day and night in the Andes to look at the creatures that live up above the tree line. During the 24 hours, we return to the five animals shown on this page to see what they are doing.



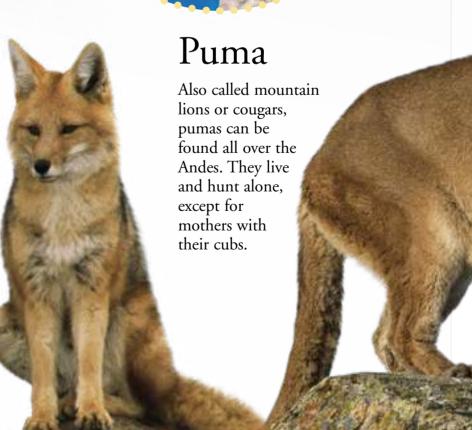
paramo grasslands to the north.

This book is set in the Altiplano region of the central Andes and on the

The Andes run down the whole of the west coast of South America.

Culpeo

The culpeo is also called the Andean red fox, but its red fur only develops as an adult. The cubs are sandy colored, which is good camouflage against predators.







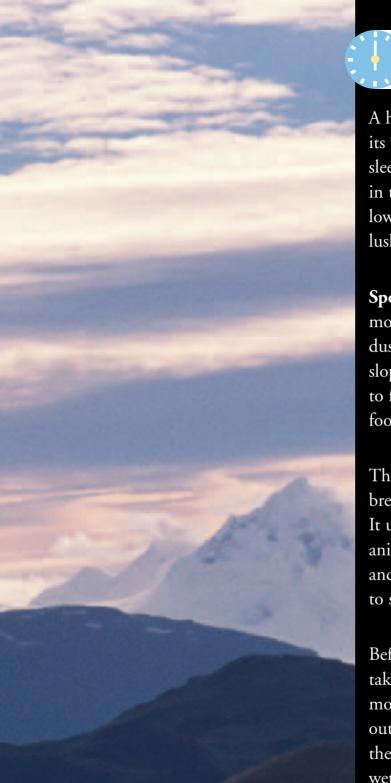
6:00 am





A lone guanaco stands in the cold morning air, watching the Sun rise over the Andes. By the time the Sun has emerged over the mountain peaks, the sunrise can seem later than it actually is.



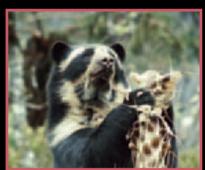


What's up at 6 o'clock?

A herd of **vicuñas** makes its way down from its sleeping area high up in the mountains. The lower slopes provide lusher grass for grazing.



Spectacled bears are most active at dawn and dusk, heading up the slopes to the grasslands to feed on their favorite food: puya plants.



The nocturnal **culpeo** breakfasts on a carcass. It usually hunts small animals such as rodents and lizards, but is happy to scavenge a free meal.



Before **Andean condors** take flight in the morning they stretch out their wings to dry their feathers, which are wet with dawn dew.



A **puma** sniffs the air, picking up the smell of another puma's urine. The cats scent-mark their territories to stop others from getting too close.





7:00 am





Like many deer, huemals "drop antlers" every year. They "come into velvet"grow new antlers-in time for the mating season.

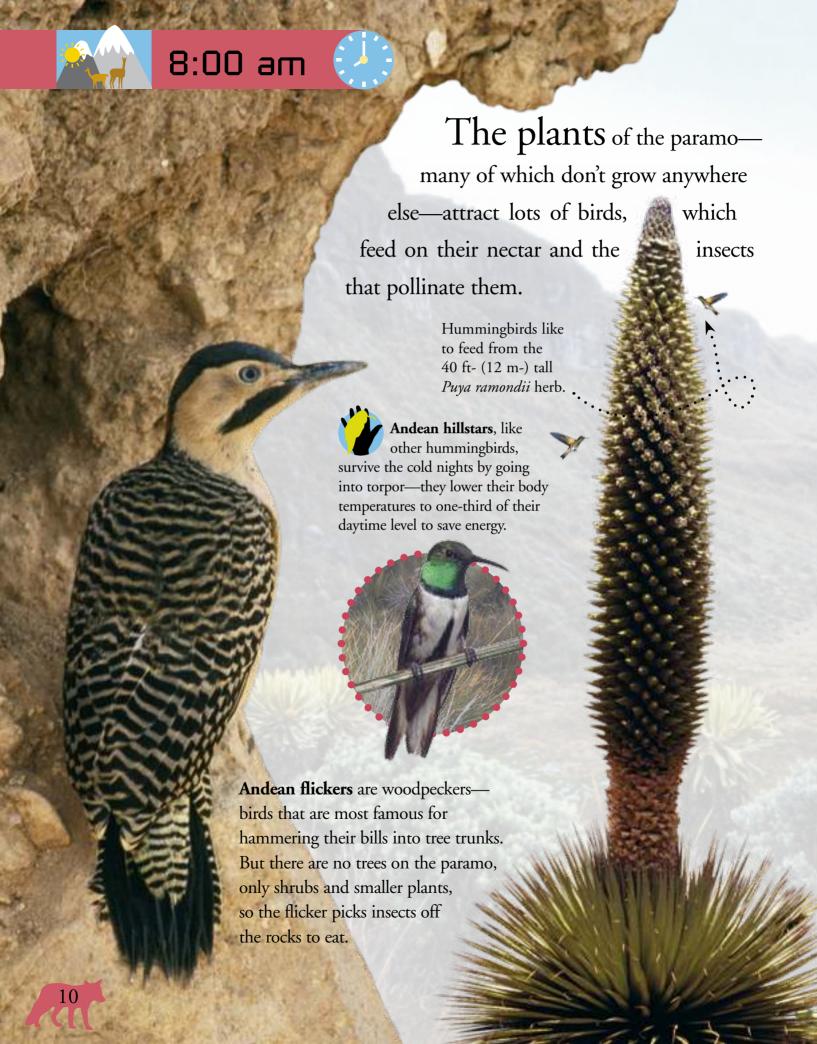
High up in the mountains, where it is too cold for trees to grow, many animals battle the biting winds and strong sunlight to graze the grasslands. The lusher grasses of the paramo provide better fodder than the drier, sparser puna to the south.

> Huemals, which are also called Andean deer, are typical herbivores. They easily climb the rocky slopes to find plants, but they are not built to fight predators. Instead, they run at high speeds to escape.



Above the tree line







Paramo birds



To the south of the paramo, an Andean hairy armadillo wanders over the barren puna. Sniffing out an insect, it unearths the food with a scrape of its long, sharp claws.

On the menu

Armadillos are omnivores: they'll eat anything from plants to rodents.



Insects such as beetles are nourishing snacks, but they are not very filling.



Armadillos will dig under and even into rotting carcasses to get at juicy maggots.





The armadillo is only active in the daytime during winter. Summer heat forces it to turn its day around, searching for food at night and spending the day in cool burrows.



Strong claws make fast work of digging a 10 ft- (3 m-) deep burrow. The holes are only used once.



The best place to hide from predators is underground, but when there's no burrow to dive into the armadillo covers its legs and relies on its armor plating.



UST as there are high peaks in mountainous territory, there are also deep valleys. Colca Canyon is thought to be the world's deepest gorge (narrow valley). The steep slopes are a favored roosting site for Andean condors.





What's up at 10 o'clock?

Vicuñas are grazers: their days are taken up with eating, drinking, and chewing the cud. Young vicuñas even eat while lying down.



Spectacled bears live in cloud forests below the grasslands. During the day, they rest in the trees, bending branches to make "nests" to sit in.



Fully fed, the nocturnal **culpeo** settles down to rest among the rocks.

An adult culpeo has few predators, so it is safe for it to sleep out in the open.



An **Andean condor** finds a dead vicuña: this will be its first meal for days. Its strong, hooked bill easily tears through the decaying flesh.

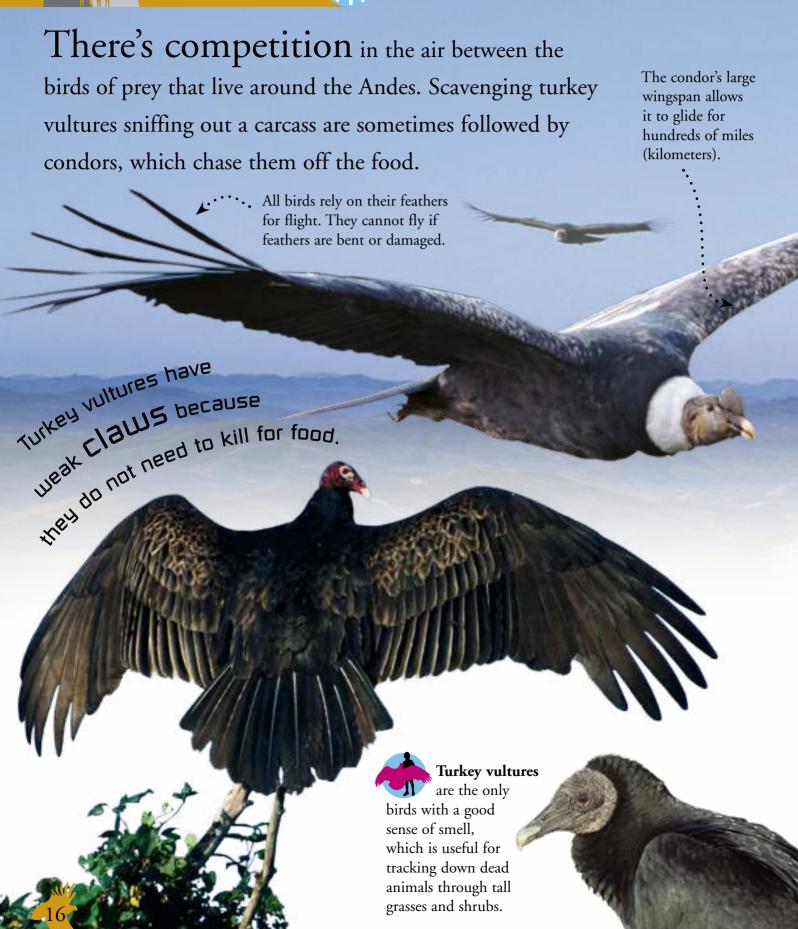


Solitary **pumas** spend the daytime asleep.
Only mothers with young cubs are still out hunting to keep their offspring well fed.









Condors have excellent eyesight, able to see dead animals and even birds' eggs on the ground while soaring high above them. They fly 200 miles (320 km) a day looking for food.



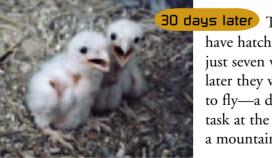
With an outstretched neck that makes him stand up straight, a male condor raises his wings in a courtship display, trying to attract a mate. The bird hisses and clucks for female attention.

The condor rides air currents to gain height. It rises over half a mile (1 km) in just two minutes.

A flying start



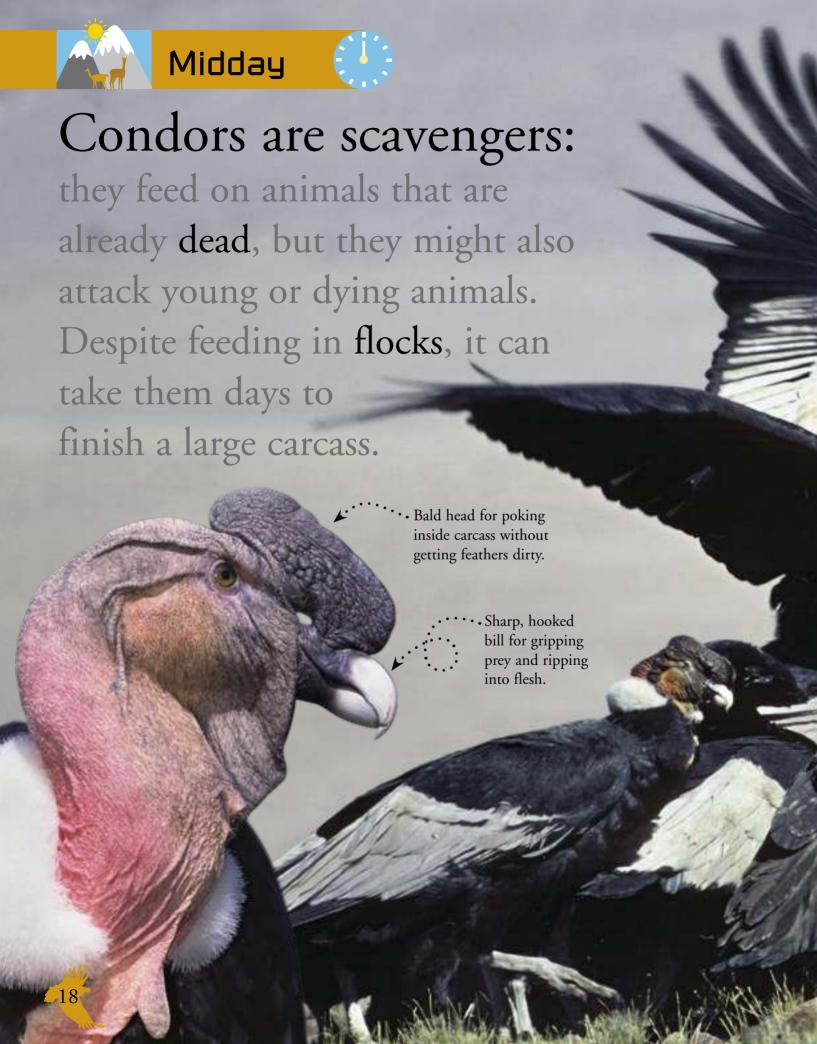
11:30 am Peregrine falcons lay their eggs in a shallow nest, called a scrape, right on the edge of the mountainside.



30 days later The chicks have hatched, and iust seven weeks later they will learn to fly—a dangerous task at the top of a mountain.

4 months later The chicks have survived flying lessons, but still rely on both parents to bring them food: other birds.





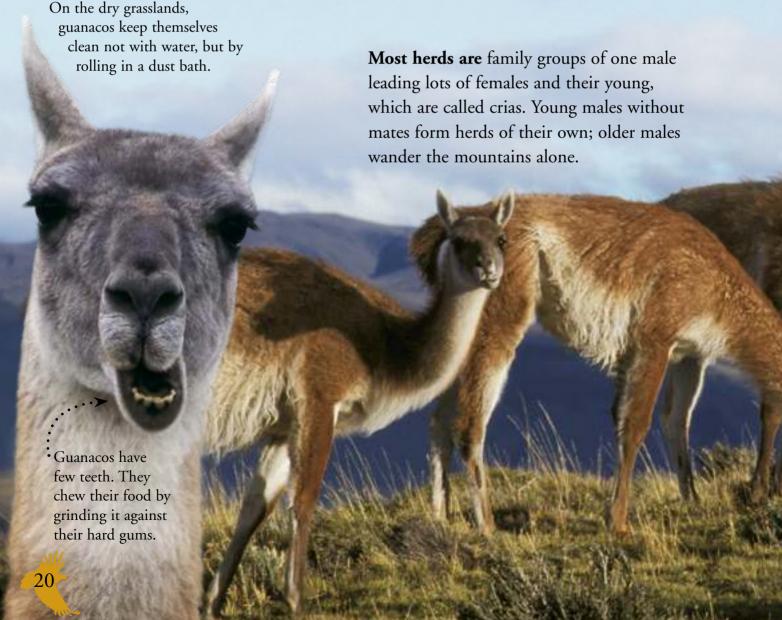






Herds of grazing

guanacos—wild llamas—are a familar sight across the Andean slopes, especially browsing plants on the puna grasslands. There are four species of llama: guanacos and vicuñas are wild animals, but llamas and alpacas are farmed.

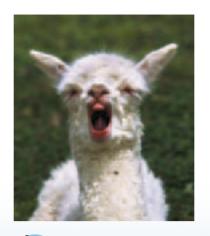




Lots of Ilamas

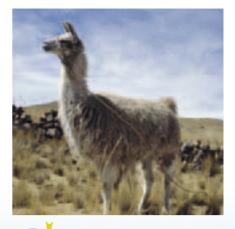


Like all llama species, **vicuñas** have the ability to run fast—which could mean the difference between life and death on the grasslands, where there is nowhere to hide from predators.



Alpacas are domesticated vicuñas. They have the softest, curliest wool of all the llama species, especially on the crias.

for the females.



Llamas are among the most common animals in the Andes. They are domesticated guanacos, farmed for their wool.

Guanacos can go without drinking for long
periods, getting all their water from food.

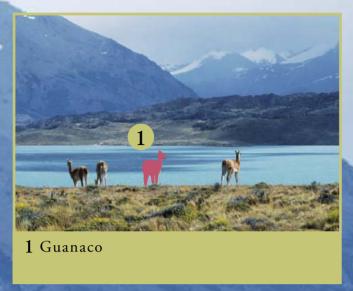
Crias start life with a bump, since their mothers give birth standing up. After a year with Mom, male crias are kicked out of the herd by the leader, who does not want any competition

The cria is born front feet first, breaking its fall to the ground. It will start to walk just one hour later.

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Between the peaks, lakes dot the Altiplano region of the Andes. Some are filled with rain or melted snow; others form from geysers that erupt from below the surface. Many provide drinking water for animals.







What's up at 2 o'clock?

Two young **vicuñas** start a play-fight, imitating the adults in the herd. Adult males wrestle each other to take sole control of the herd's females.



Feeling hungry, the spectacled bear surveys the forest for a snack. There are plenty of bromeliad plants within arm's reach of its nest.



Young **culpeos** are targets for birds of prey, so the safest place for them to sleep during the day is in an underground burrow with their mother.



The **Andean condor** gets messy when it feeds, and needs to preen its feathers afterward. It even rubs its head on the ground to get the blood off.



A female **puma** watches over her three cubs while at rest. The small, young cubs could be targeted as prey by foxes or even other pumas.





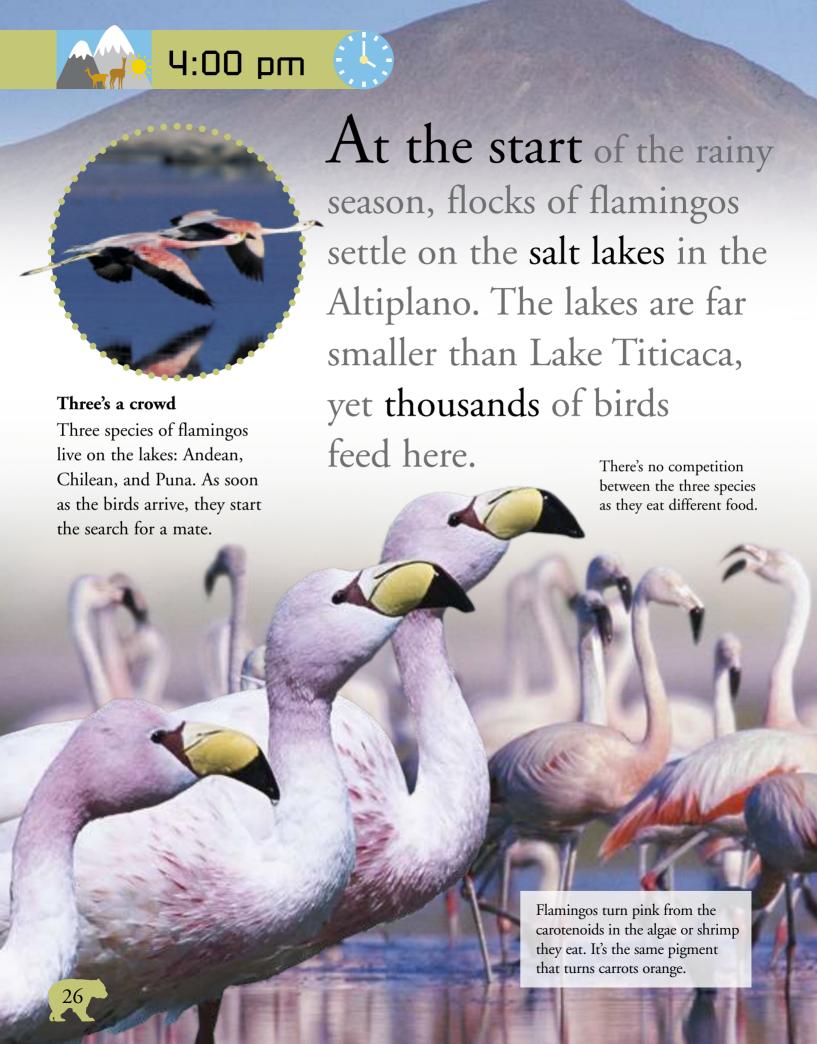
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The freshwater Lake Titicaca is the world's highest navigable lake (big enough for boats to sail on). Located in the Altiplano, it is home to frogs and fish that don't exist anywhere else in the world.



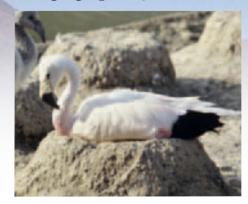




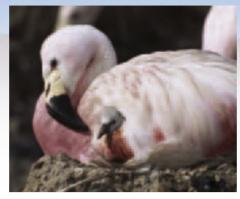




Bringing up baby



October Flamingo pairs build their nests, ready for laying a single egg. The lakeside is covered in volcano-shaped mounds of mud.



December The fluffy gray chick has just hatched. The 2 ft- (60 cm-) high nest keeps the bird safe from any flood waters.



April The chick has grown out of its "baby" feathers and is ready to fly, but still relies on its mother for food.





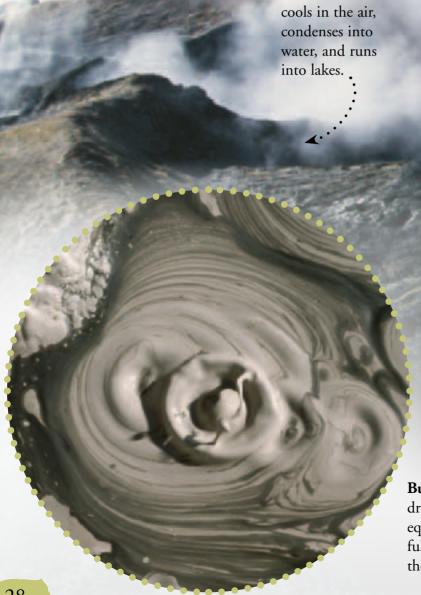
There's more to the Altiplano than lakes and puna grassland. The Andes are a chain of volcanoes, many of which are still bubbling away underground. This activity comes to the surface through geysers and pools of boiling mud.

The hot steam

An outgoing geyser



4:00 pm The pressure of volcanic activity pushes steam through holes in the ground, making the water in the geyser boil.



Bubbling mud might not look as dramatic as a geyser, but it has an equally strong presence: the mud is full of sulfur, a mineral that makes the air stink like rotten eggs.



4:01 pm The steam quickly cools and becomes water. Only bacteria and algae can live in the boiling pool, coloring it red and green.



5:10 am As the pressure builds up below ground, the geyser suddenly and briefly erupts, sending a jet of hot water and steam into the air.



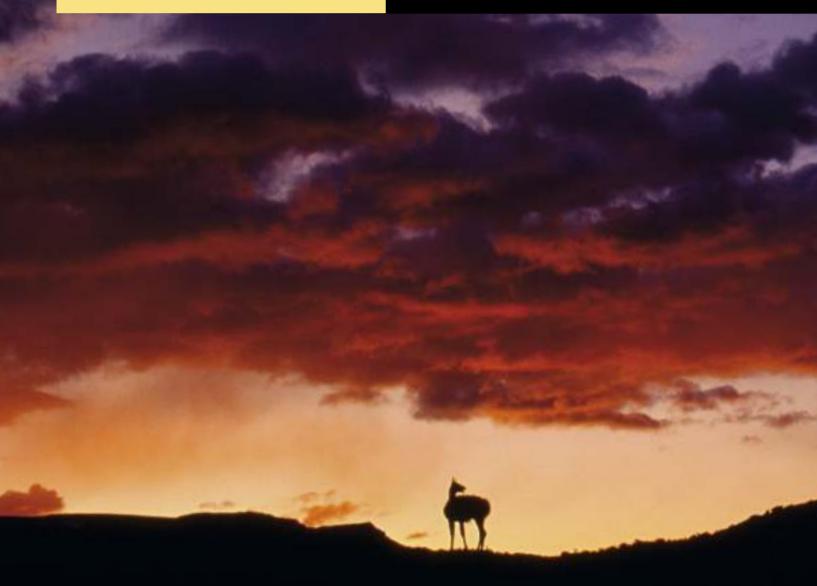


6:00 pm





Sunset falls later in the day the farther south you move through the Andes, away from the equator. With light fading as soon as the Sun sinks behind the peaks, there is little time for a guanaco to find a safe place to sleep.







What's up at 6 o'clock?

Unlike guanacos, vicuñas drink lots of water during the day. They never stray far from rivers or lakes when grazing on the rocky slopes.



The **spectacled bear** leaves its tree to search the forest and paramo for food. Although mostly vegetarian, it will also eat small animals.



The **culpeo** rouses itself from its daytime rest to go hunting. A male culpeo with young cubs needs to get food for his family as well as himself.



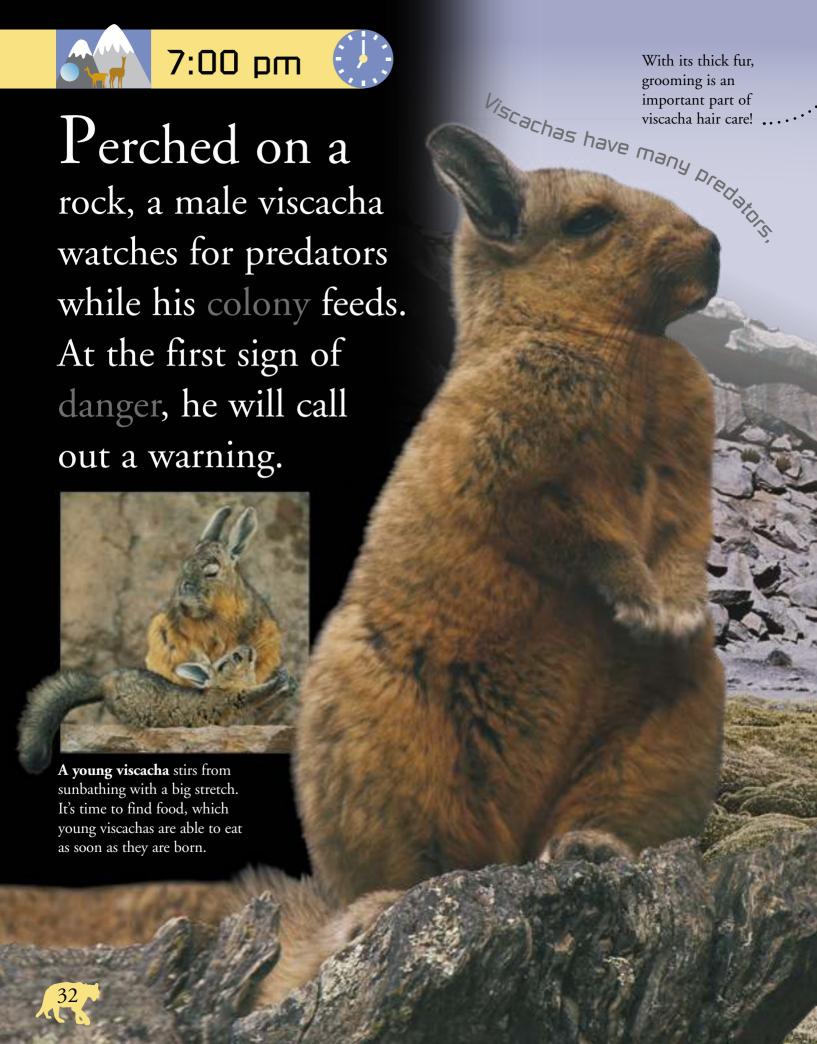
Feeding and preening all day must be tiring work for an **Andean condor!** Giving a huge yawn, it prepares to return to its roost for the night.

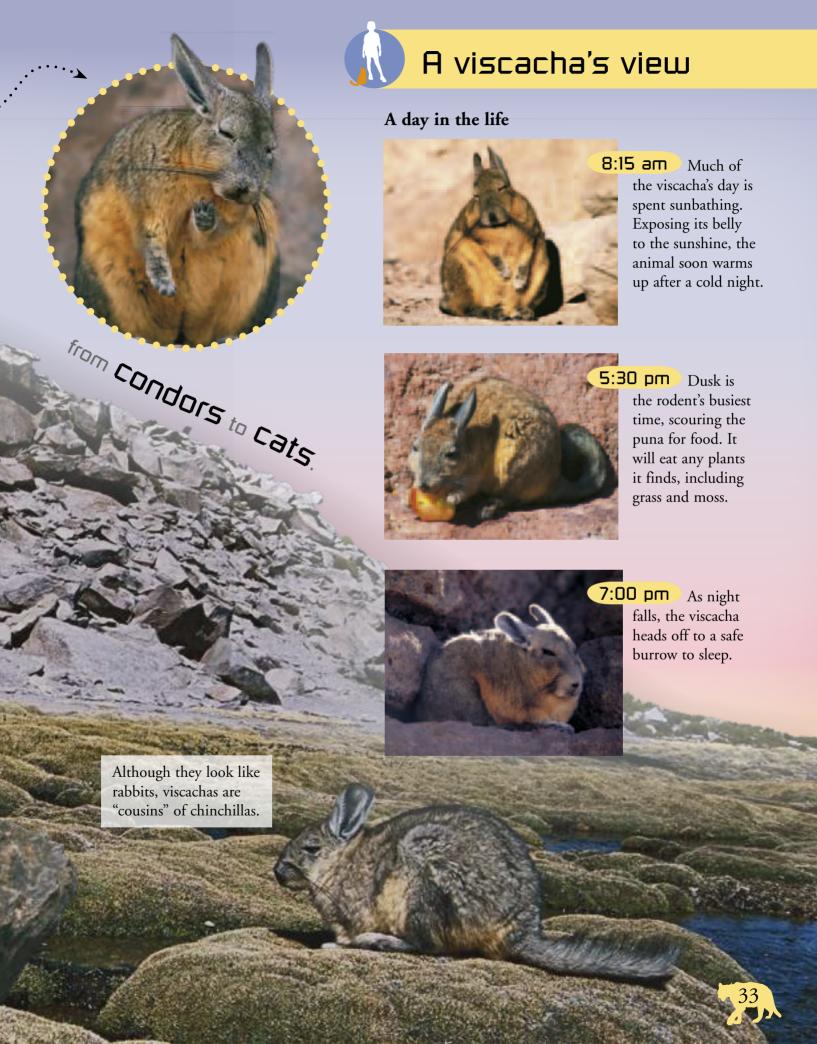


From a high point on the peaks, the **puma** scans the mountains for prey. It prefers large deer or guanaco, but any meat will do.

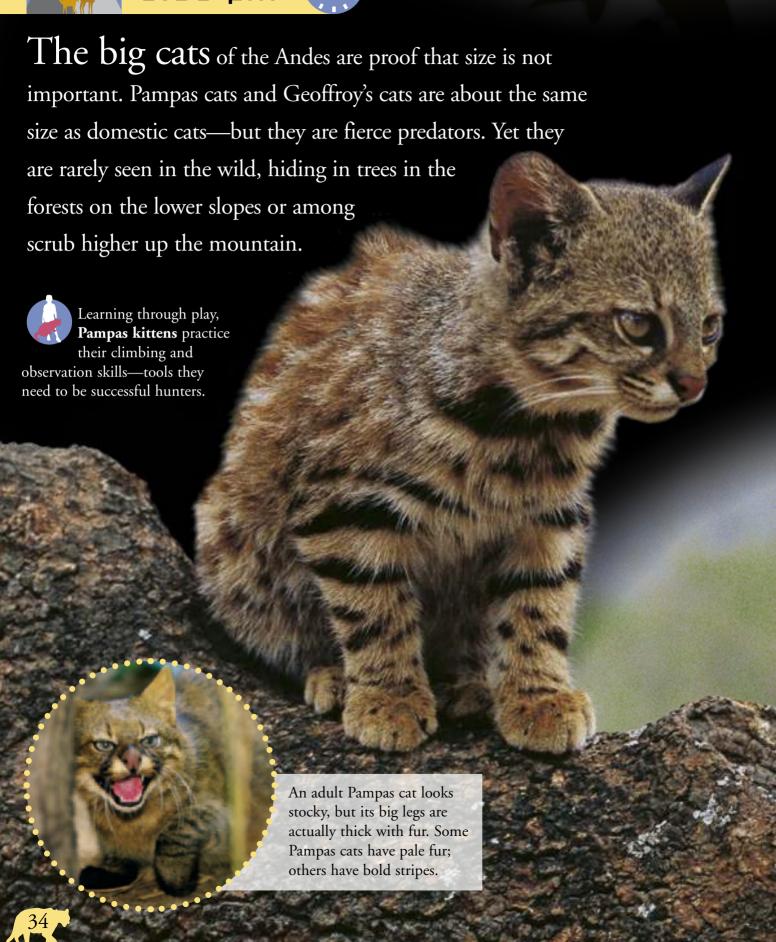














Catty behavior



Geoffroy's cats, like many wild cats, have similar habits to pet cats—such as washing with their paws.

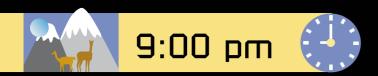


The cats are expert climbers at the age of six weeks, scrambling out of the rocky dens where they were born.



A startled cat gives a defensive yowl to protect its mate. If threatened, the aggressive animal will spit and bite.





In a land of predators, the puma is king of the carnivores. It is the largest cat of the high Andes, yet it is rarely heard: it doesn't roar, but has a call that sounds like a human scream.



A close encounter

Pumas only spend time with others during mating, or as young cubs with their mothers. The cubs' spotted fur grows out as they become adults.



Keeping a low profile

The puma's hunting technique is all about surprise. It stays low to the ground, silently stalking the prey, then suddenly springs up and kills its victim with a single, ferocious bite.

A long wait for dinner

7:15 pm A female
puma kills a guanaco
she has been tracking
since dusk. She hunts
all day to feed her
cubs; now it's time to
find food for herself.



7:20 pm There are too many scavengers around for her to eat undisturbed, so the puma drags the carcass into shrubs to hide it until later.



it is dark, the puma finally tucks in.
Even though the cubs have eaten during the day, they can't resist a nibble!



10:00 pm





Night is a dangerous time for smaller animals because the darkness brings out some ferocious predators.

Pumas and great horned owls can snatch a deer or rodent without warning, while culpeos are expert egg thieves.





What's up at 10 o'clock?

The **vicuñas** have headed back up the slope to their sleeping area just beneath the snowline. They will sleep among the rocks until daybreak.



The **spectacled bear** wanders high into the paramo in its search for food. Mountain climbing is as easy as scaling a tree for this agile animal.



Young male **culpeos**need to establish their
own hunting grounds.
Sniffing scent markings
tells them if the territory
has already been taken.

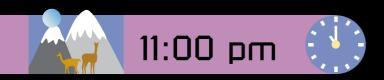


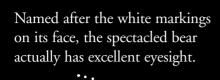
Mateless Andean condors roost in groups at night. There are no nesting materials this high up in the mountains so the nest is a bare ledge.



The **puma** returns to the prey it buried earlier. It waits until nighttime to eat, when there are fewer scavengers around to compete for the food.







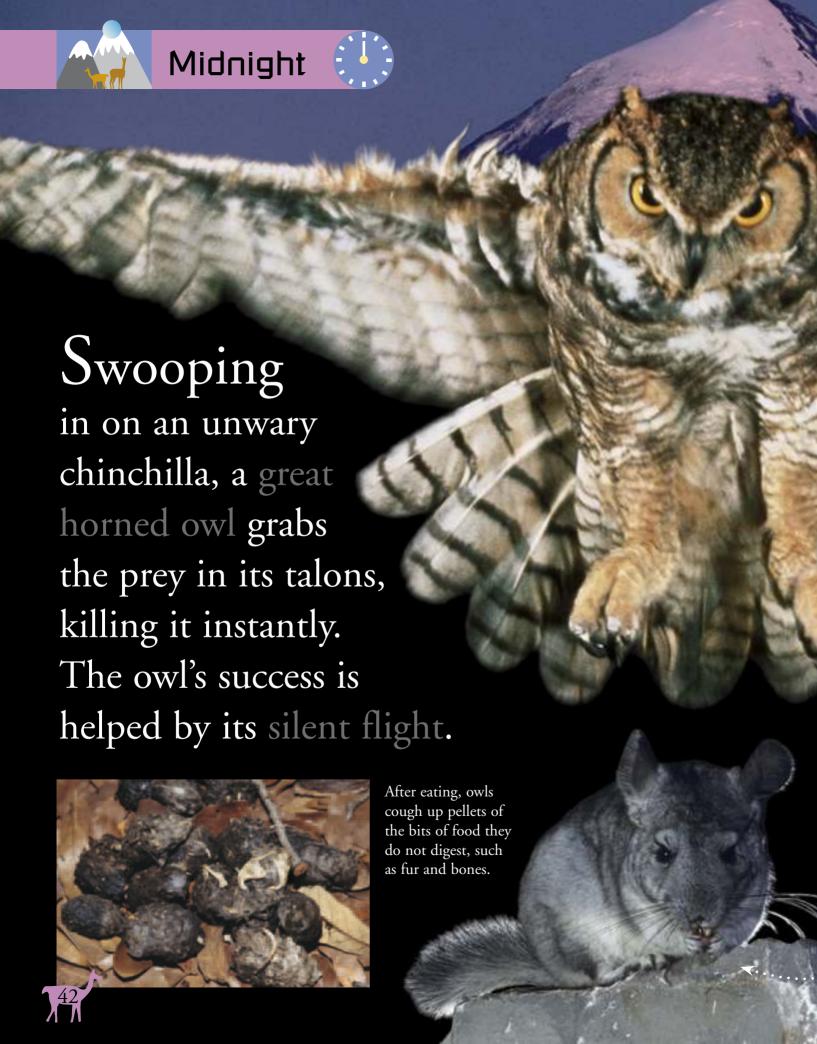
Since leaving its daytime nest at sunset, the spectacled bear has been foraging in its cloud forest home and up on the paramo. It is more active at night than in the day.

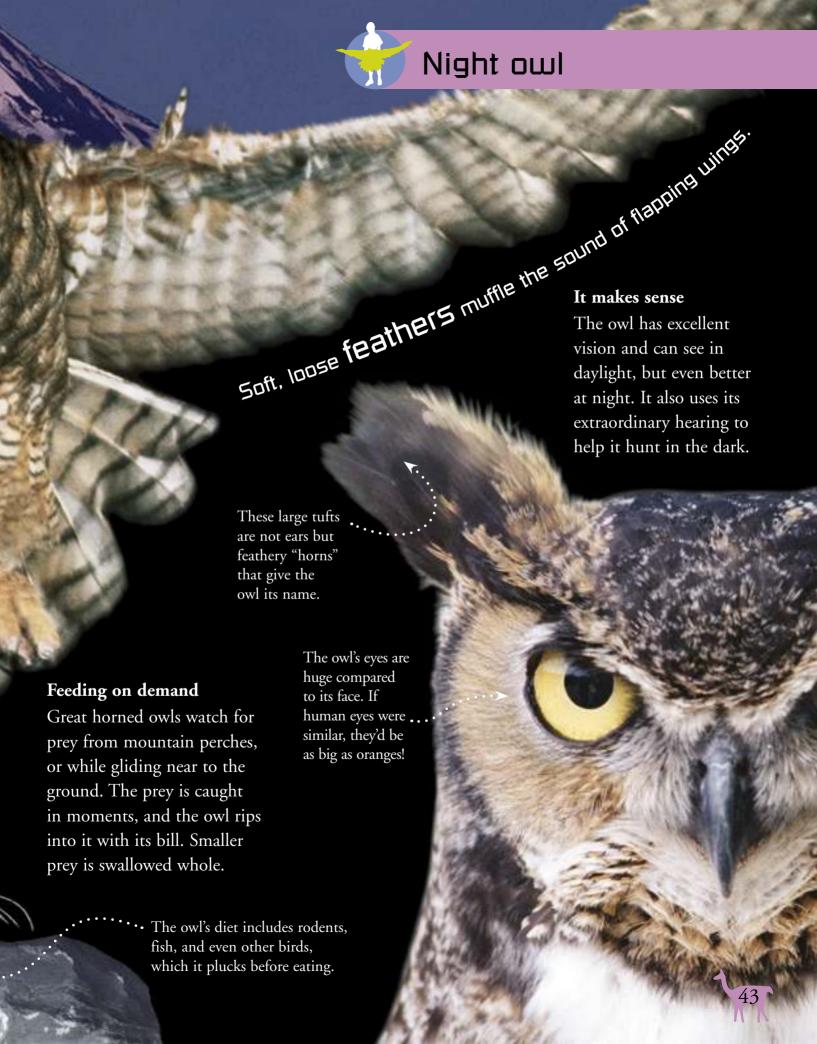
Big bear, small threat

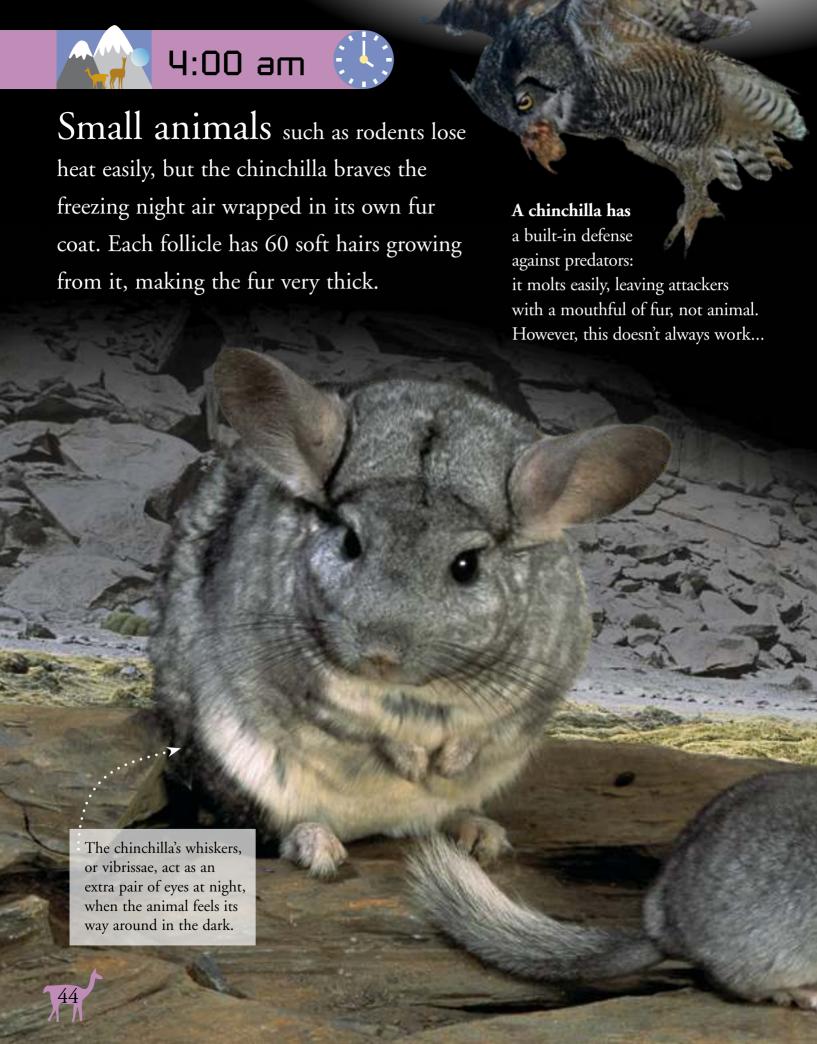
South America's only bear species, the spectacled bear is one of the largest mammals in the Andes. It mostly eats plants, but occasionally tops off its diet with small animals such as rodents.











It's been a busy day...



themselves at dawn to get warm and dry, chinchillas start the day with a roll in a dust bath to clean their fur.

Chinchillas are not the only rodents out at night: they share the puna with montane guinea pigs. These wild animals are the cousins of the domestic guinea pigs kept as pets all over the world.



Resting in a den among the rocks, a female feeds her kit. Born with a full fur coat, the kit can also eat plants right from birth.

8:00 pm It's time to get back outside to find food, which chinchillas hold in their paws to eat.

Wild guinea pigs live underground in burrows. Their pointed faces are ideally shaped for pushing through tunnels and also for foraging for plants

to eat.

Guinea pigs **live** for about four years in the wild.

Having light-colored fur is good camouflage for a chinchilla on the rocks.



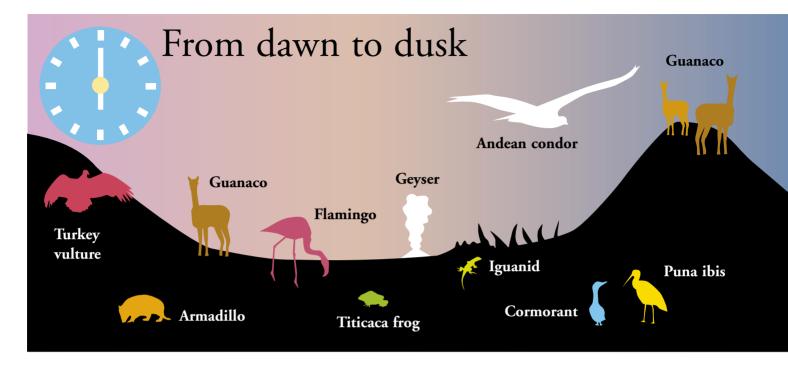












Glossary

Here are the meanings of some of the important words you will come across as you read about the animals of the mountains.

ALTIPLANO A highland plateau in the central Andes, mostly in Bolivia, but also reaching into Argentina and Chile. It is a region made up of puna and lakes.

Camouflage A color or pattern that blends in with the background, so it can't be seen.

CARCASS The body of a dead animal, especially one that is used for food.

CARNIVORE Animals that eat meat are carnivores.

CLOUD FOREST An evergreen tropical forest found on the lower slopes of mountains. The plants in the forest are surrounded by clouds and mist.

COLONY A group of animals of the same species that live together.

DIURNAL Animals that are active during the daytime are diurnal.

FORAGING Grazing for food, particularly plants.

GEYSER A natural pool that shoots a jet of hot water and steam into the air. The pressure and heat for the jet comes from volcanic activity underground.

HERBIVORE Animals that eat only plants are herbivores.

JUVENILE A young animal that is no longer a baby, but is not yet an adult.

NOCTURNAL Animals that are active during the nighttime.

Omnivore Animals that eat everything—meat and plants—are omnivores.

PARAMO The lush grasslands of the northern and central Andes. The paramo is near the equator, where it is warm and rainy. As a result, it has more—and bigger —plants than the puna.

PLATEAU A wide, flat area of raised ground. The Altiplano plateau is surrounded by volcanoes.

PREDATOR An animal that hunts, kills, and eats other animals.

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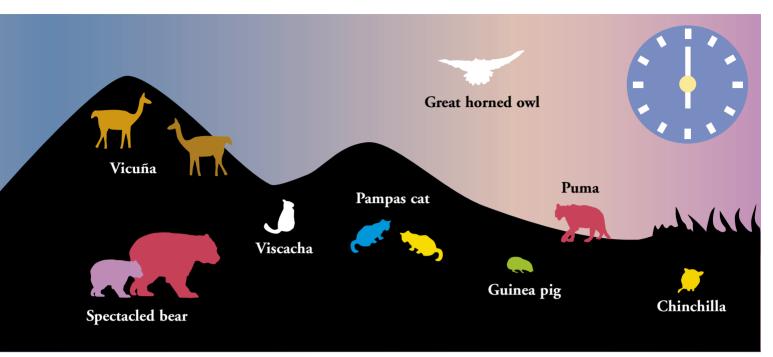












PREY The animal that is hunted, killed, and eaten by a predator.

Puna The type of vegetation found in the Altiplano. It is dry and sparse grassland.

ROOST A place where birds perch to sleep or rest. It is also the action of a bird settling down to sleep or rest.

SCAVENGER An animal that looks for carcasses to feed on, rather than hunting for itself.

TALON A bird of prey's sharp, hooked claw, which it uses to catch prey.

THERMAL A current of warm air that rises.

TREE LINE The highest level at which trees can grow. Above the tree line it is too cold for trees.

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