



*Jokes Aside*

**▶ Meet ◀**

# THE POLAR BEAR



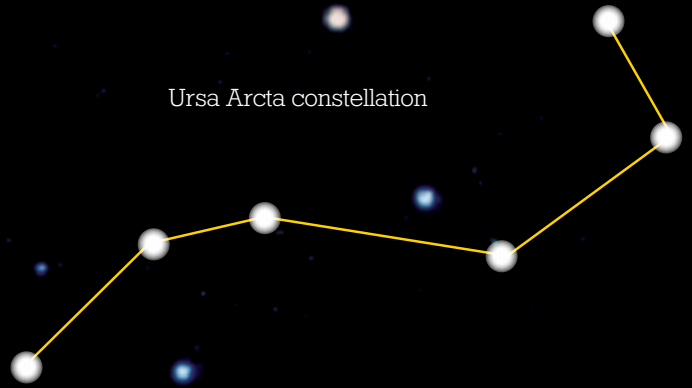


### See the Polar Bear in AR:

- Download the Polar Bear app in Google Play and AppStore
- Look for this sign in the book
- Hold your smartphone or tablet over pages marked with the sign
- Enjoy your AR experience!



Ursa Arcta constellation



## Jokes Aside: Meet the Polar Bear

- Fun facts about the King of the Arctic
- Play and learn
- How polar bears adapt to arctic climate
- 3D models of polar bears and other animals in augmented reality
- Cool polar bear stickers



<https://spasimishku.ru/>

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*Jokes Aside*  
**Meet**  
**THE POLAR BEAR**

First edition featuring augmented reality and cool stickers





## About this book

About one fifth of Russian territory lies north of the Arctic Circle. For generations, Russians have been exploring and settling in the High North. Polar bear, a mighty beast ruling over the northern wilderness, has become the symbol of the Russian Arctic. The very word Arctic comes from *arktos*, the Greek for *bear*, and literally means the region beneath the Ursa Major (Great Bear) constellation.

Today, Russia's presence in the High North keeps increasing. Both "masters of the Arctic", the man and the polar bear, should avoid putting each other in harm's way. The PORA Expert Center for Arctic Development designed a program aiming to stop poaching for polar bear hides, which endangers the polar bear population. As part of this program, a large-scale awareness-raising campaign has been launched. A center for extracurricular education called the Little Polar Bear was established in the city of Norilsk with a view to provide children with environmental education. The center offers learning programs that help children learn more about polar bears, the ways to protect this species, and how one can contribute to environmental protection and awareness-raising.

This book features interesting facts about the polar bear, his living environment, nutrition and behavior. Its target audience are children aged 6 to 14. It can be used as self-study material, in class, or as supplementary material when studying biology or natural history.

Not for sale.

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# To Our Young Readers

Dear reader!

This book is called *Jokes Aside: Meet the Polar Bear*.

With its help, you will be able to:

- learn interesting facts about the polar bear – the biggest and the most fearsome predator on Earth – and his cute cubs,
- take a closer look at the polar bear and other animals with the Polar Bear app on your smartphone,
- learn how the bear's body has adapted to the harsh climate of the Arctic.

Bonus: cool polar bear stickers inside!

They will make reading more fun!

## See the Polar Bear in AR:

- 1 Download the Polar Bear app in Google Play or AppStore



- 2 Look for this sign in the book



- 3 Hold your smartphone or a tablet over pages marked with the sign



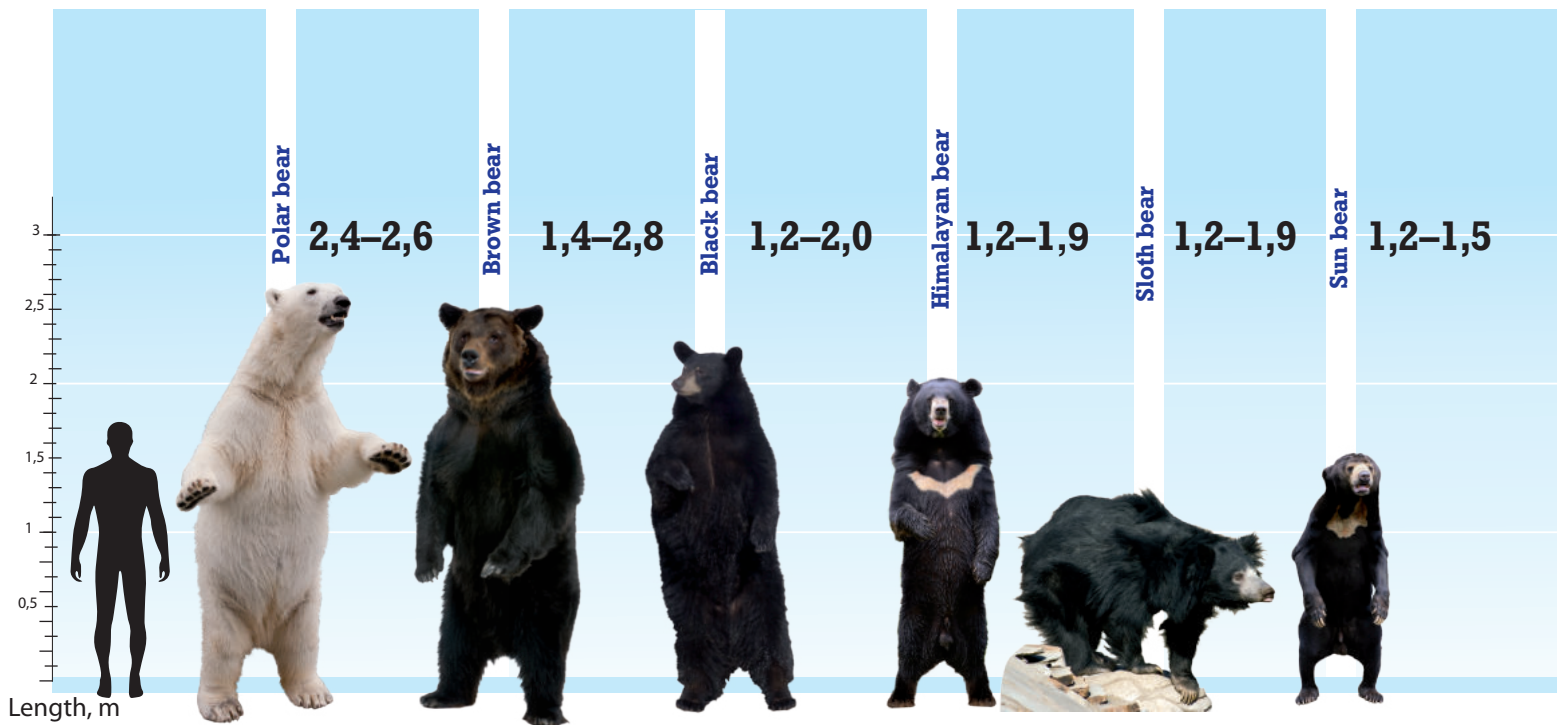
- 4 Enjoy your AR experience!





# The Biggest Bear

There are several bear species on Earth. Polar bear is the biggest and the strongest of them all.



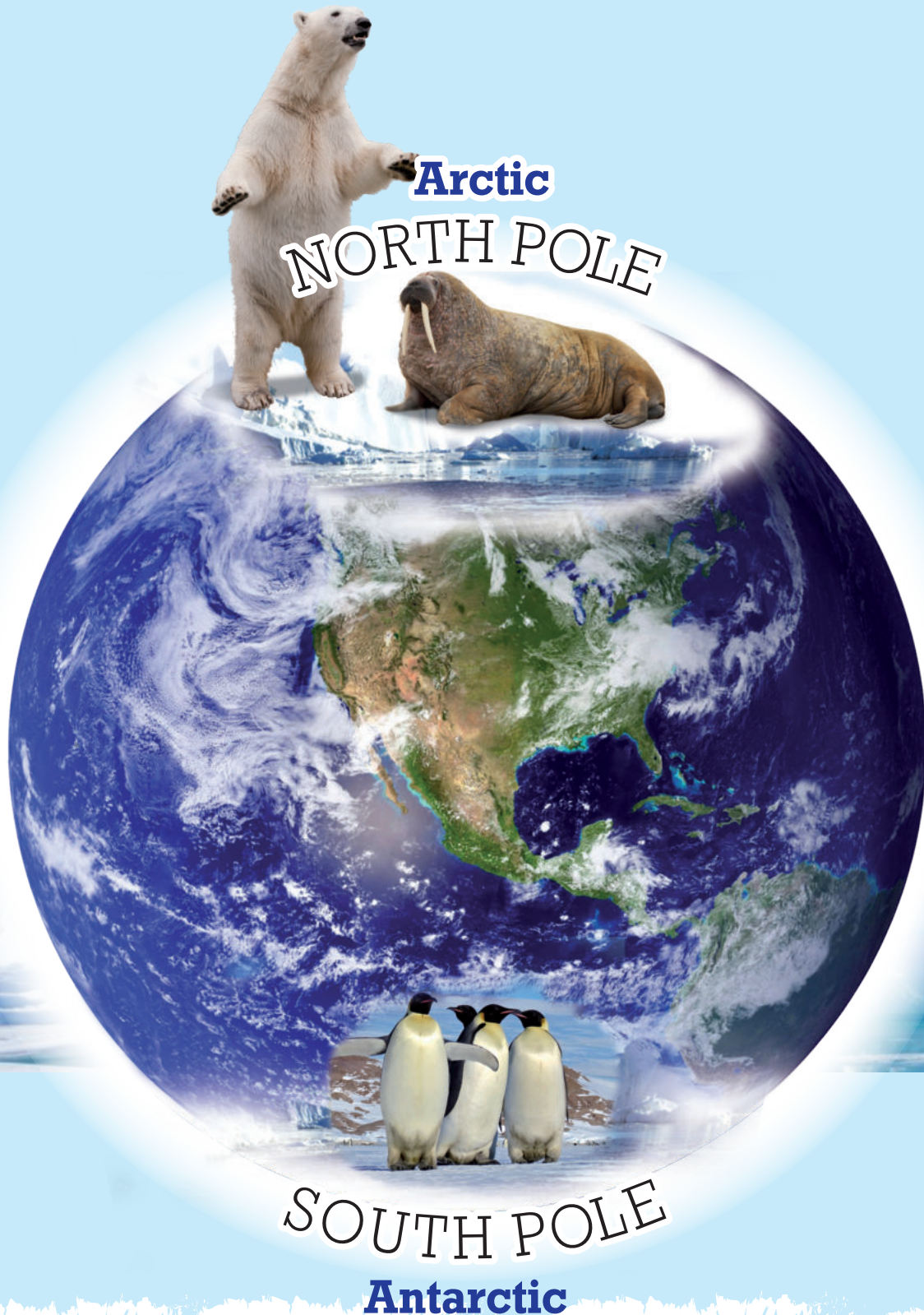
# Absolute Champ

Once people met a record-setting polar bear. He weighed as much as 1,002 kg. When standing on his rear paws, he was 3.4 m high.



# Arctic is not Antarctic

Polar bears live in the Arctic only. The Arctic is a cold region covered with ice and snow. Even in summer the weather is rather cold – and it turns freezing cold in winter. The North Pole is in the Arctic. Our planet has the South Pole, too. It is in the Antarctic. It is also very cold down there, but polar bears do not live in the Antarctic. Penguins do!



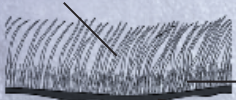
# Black-and-White

The polar bear's fur is colorless and transparent. It only seems to be white, as it reflects bright light. Polar bear's nose, paw pads and skin are black in color. So, polar bears are actually black.



## Protective fur

Long, transparent, hollow hair diffuses light thus hiding the bear and allowing his skin to absorb heat.



**A thick underfur** layer keeps him warm.

**Dark pigmented skin** transforms sunrays into heat.

A 1-4.5 cm-thick **blubber** insulates the body against heat loss during winter.

# Sea Bear

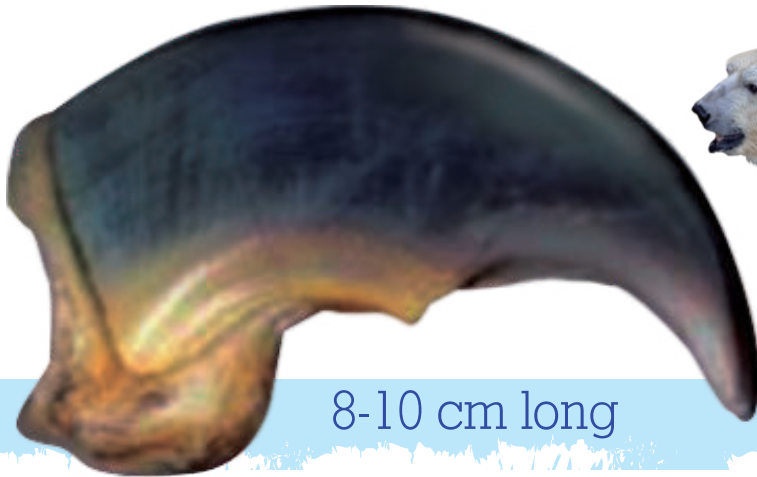
The polar bear spends most of his life on ice covering the Arctic seas. Scientists call him *Ursus Maritimus*, or the Sea Bear. Polar bears hunt marine animals. He is a great swimmer and diver. When swimming, he dog-paddles. A polar bear is able to swim for entire days without taking a rest, traveling at distances of hundreds of kilometers.



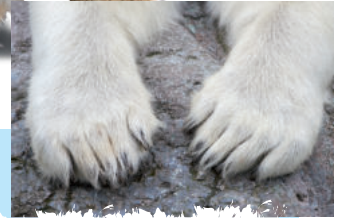
# Clawed Snow Shoes

The polar bear's paws are wider than those of any other bear. This is why they do not sink into the snow. There are thick skin pads at his soles. They help him keep balance when walking on ice. Just like humans, he has five fingers at each paw ending with long sharp curved claws. They are smaller than those of the brown bear. Unlike cats, polar bears cannot sheath their claws.

## Polar bear



8-10 cm long



## Brown bear



12-15 cm long



## Black bear



3-4 cm long



# King of the Arctic

The polar bear lives in areas where no tasty nuts, roots, acorns, or honey – which other bears are so fond of – are available. He has to hunt to sustain. He feeds on seals – mostly ringed seal and bearded seal. Seals eat polar cod. Polar cod eats Nordic shrimp. Shrimp eats plankton. However, no one eats polar bear. This is why he is the King of the Arctic.



Ringed seal. Photo : NOAA Fisheries, <https://fisheries.noaa.gov/>. Bearded seal. Photo: Umken, <https://umken.ru/>



# Agile Hunter

The polar bear prefers to walk at a slow pace slightly wagging his head to the sides and looking around. However, he is not as slow as he may appear. When sprinting, he can outrun a world champion in a 100-meter race.

## SPEED



# Mr. Unpredictable

The polar bear is a real expert in camouflage. He is also known for his outstanding patience and unpredictability. He can spend hours near holes in the ice waiting for seals to show up. When a seal emerges, the polar bear launches a surprise attack. Even the most cautious seal is very unlikely to see that coming.



# Sensational Sense of Smell

All five senses of the polar bear are in top shape. Polar bears can see as good as humans, hear a bit better than us, and sense smells much, much better than us. The polar bear's sensitive nose helps him find food. He is able to smell prey at a distance of 1.6 km and hiding under a 1-meter-thick layer of snow.



1 meter

Sense of smell: 100 times better than that of humans.

# Curious Wanderer

Polar bears lead a simple life. When not hunting, polar bears are either sleeping or resting. After a good meal, a polar bear likes to nap. Then he wakes up and starts wandering around in search of prey. Polar bears can be easily distracted by any object they stumble upon while roaming. Everything draws their attention – a log driven ashore, an old barrel, a pile of stones. The bear will come closer, inspect the object, touch it with his nose and paws, and attempt to overthrow it, break it to pieces or tear apart. If polar bears are known to be present in the area, never leave your inflatable boat, tents and backpacks unattended.



# Caring Mom

When a female bear reaches the age of 4-5 years, she gives birth to cubs. Before becoming a mom, she eats prodigious amounts of food to amass fat, digs a den and then hibernates.



# Tiny Bears

In winter, female bears dig dens in snow and give birth to cubs. Typically, there are two of them. Cubs are born very small in size, almost naked, and helpless. Cubs are nursed on their mother's milk. Bear milk is high in fat and smells of fish.



30 cm long

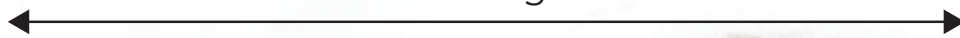


400–700 g



Photo : Xinhua/Rein Yong, <http://en.people.cn/>

50 cm long



3-3,5 kg





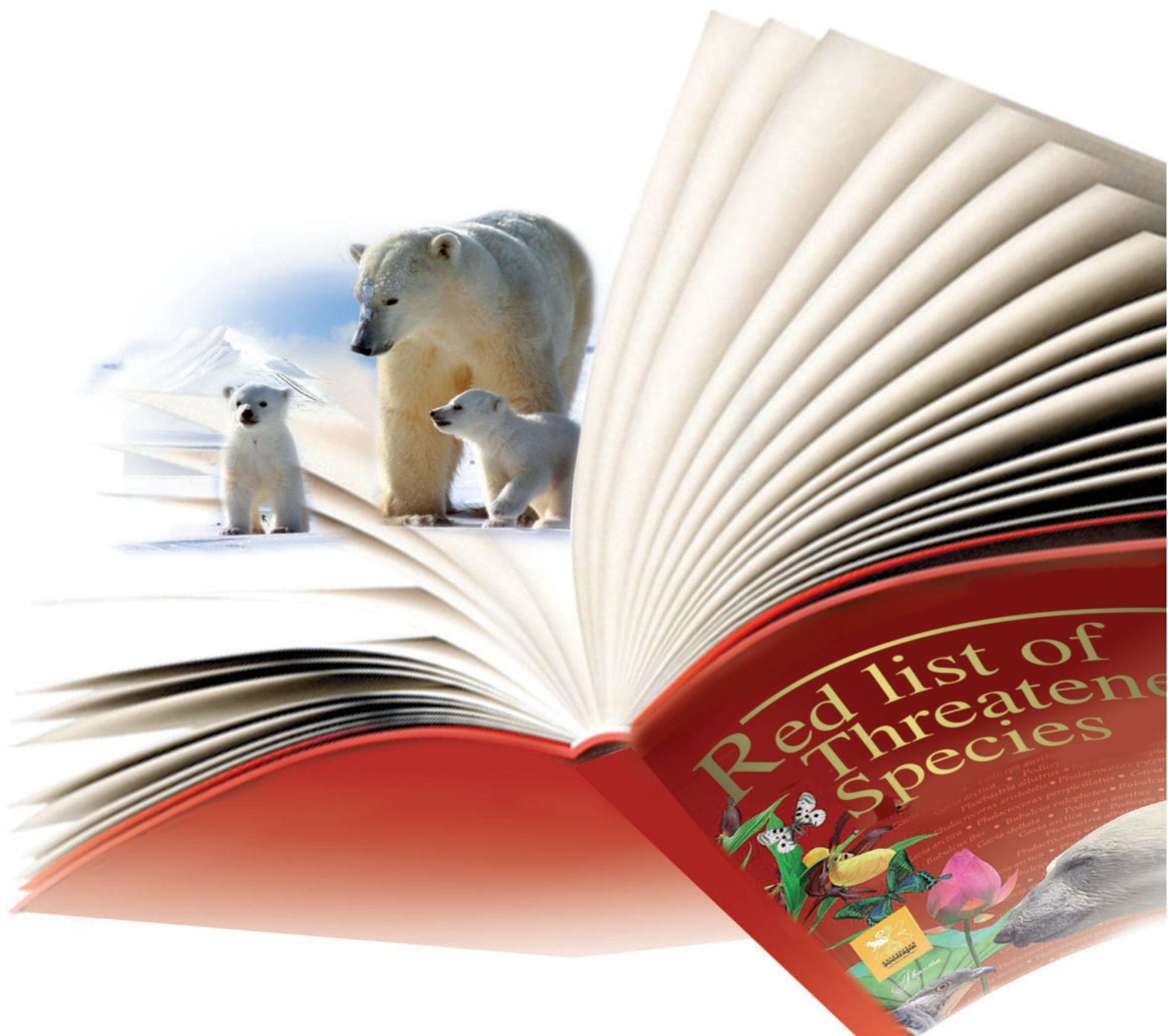
## First Steps

By spring, cubs gain about 10 to 15 kg. This is when they leave their den with their mother who takes them for their first walk outside. The family comes out of the den only in daylight hours, and if the weather is fine. The mommy bear teaches her cubs how to swim and hunt. Cubs live with their mother till the age of two and then start their adult lives.



# Protected Species

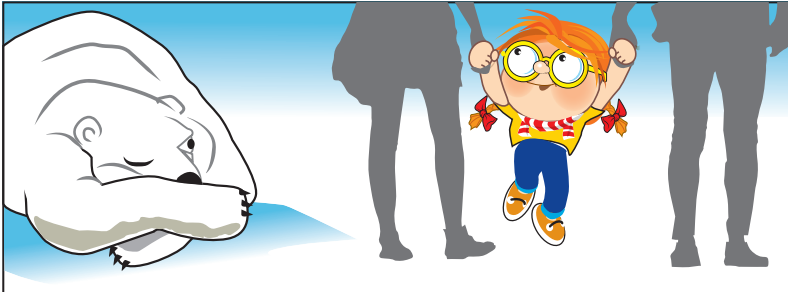
The polar bear is included on the International Red List of Threatened Species and the Russia's Red List of Threatened Species. These are the lists of animals and plants in need of human protection. The polar bear needs protection, too. In Russia, hunting polar bears is banned since 1957. Today, vast areas where polar bears live, breed and feed have the status of nature reserves.





# Dangerous Cutie

Polar bears may seem nice and friendly, but in fact they are dangerous predators. To them, humans are food. If you happen to be in an area where polar bears have been sighted, you should follow these simple safety rules.



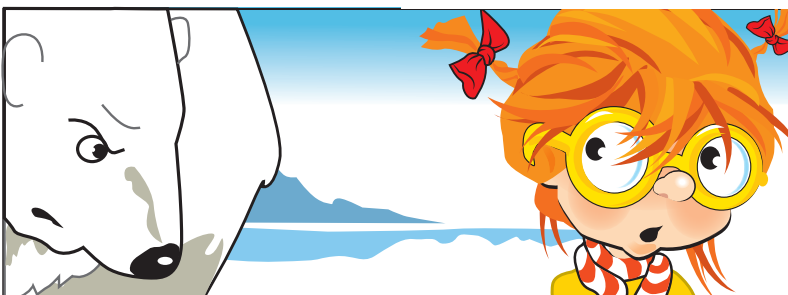
**1** Stay with your parents at all times!



**2** If you see a polar bear, stay away from him!



**3** Do not try to run away from a polar bear! If you do, he will think that you are prey and chase you.



**4** Do not turn your back on a polar bear.



**5** Never lay down on the ground. That is what a seal normally does, and bears hunt seals.

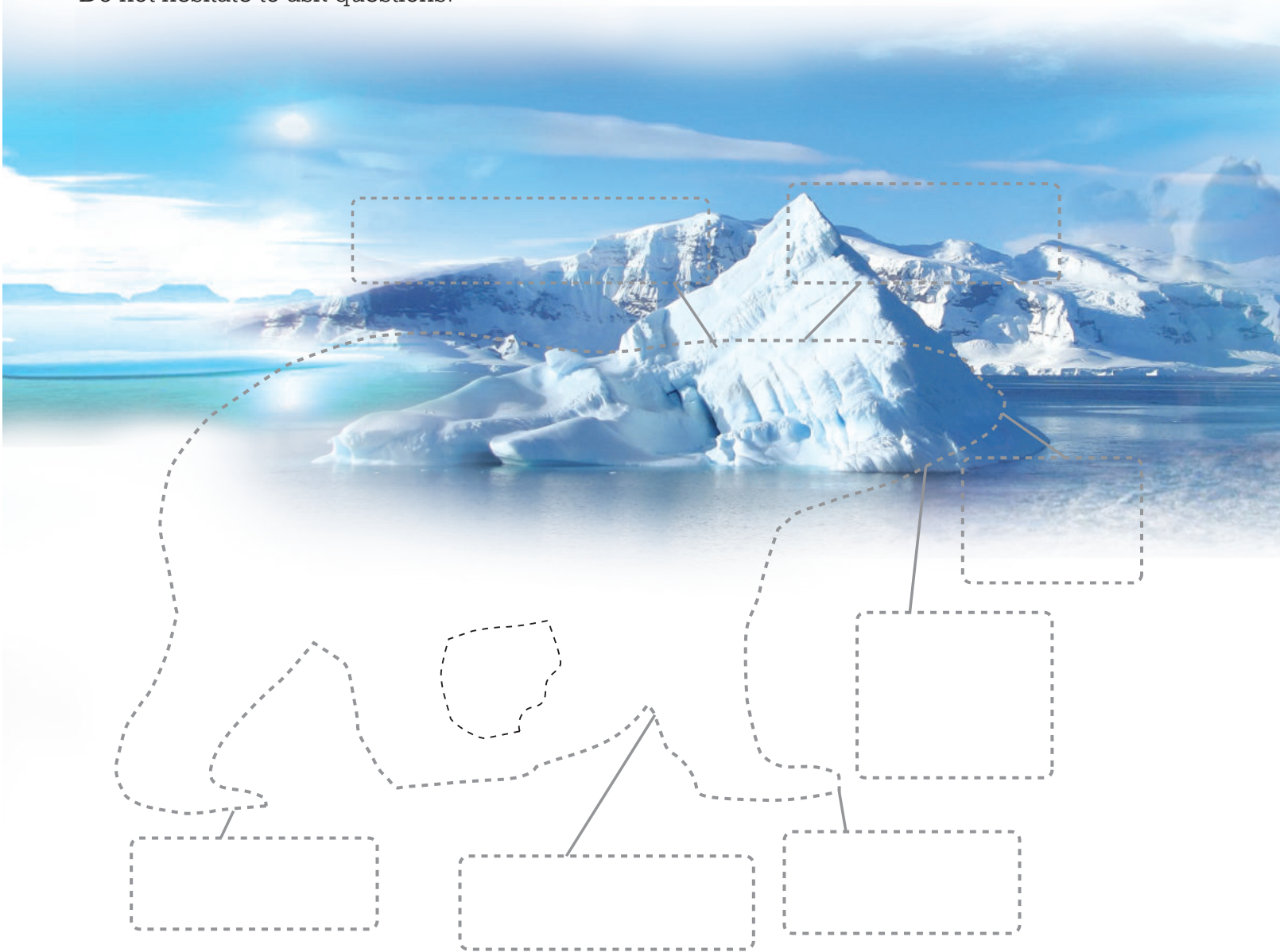
# How Polar Bears Adapt to Arctic Climate

## Play-and-Learn Stickers

Take the stickers from the insert and put them into the matching outlined spaces.

Discuss the topic with your friends, parents or teachers.

Do not hesitate to ask questions!









# Polar bear

(Ursus maritimus)

How Polar Bears Adapt to Arctic Climate. Stickers

Put stickers to the outlined spaces on page 21

**Muscle hump**

Strong muscles make the polar bear able to hunt big mammals

**Small round ears and a short tail**

Their small surface helps save body heat

**Broad paws**

They do not sink into the snow and help bears swim

**Additional transparent eyelid**

Protects from bright sunlight and ultraviolet rays

**Thick and warm fur**

Together with fat, provides perfect protection from cold and physical damage

**Long snout**

Helps withstand Arctic winds and improves swimming and diving performance

**Long sharp claws**

Help easily handle any prey

