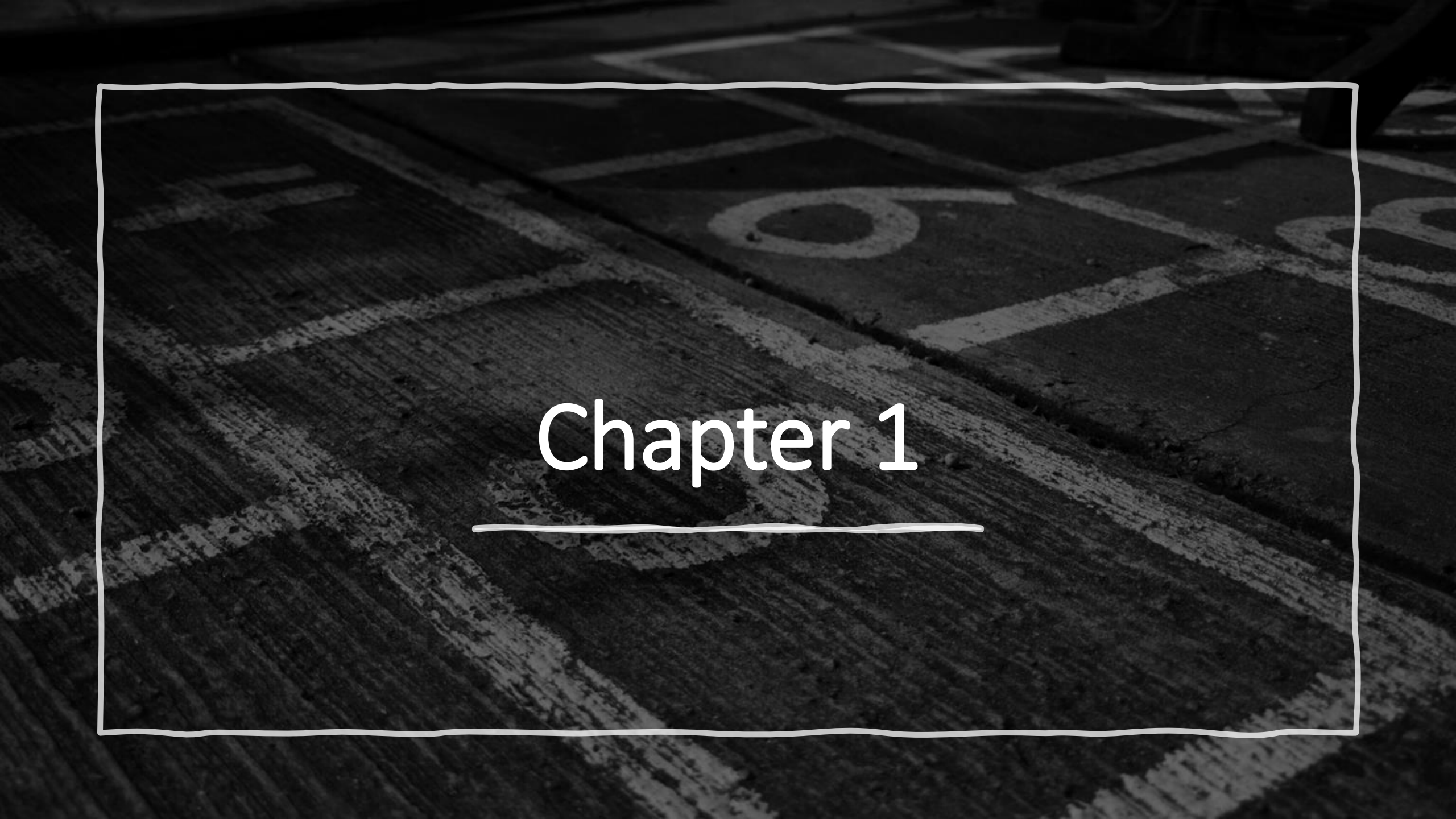
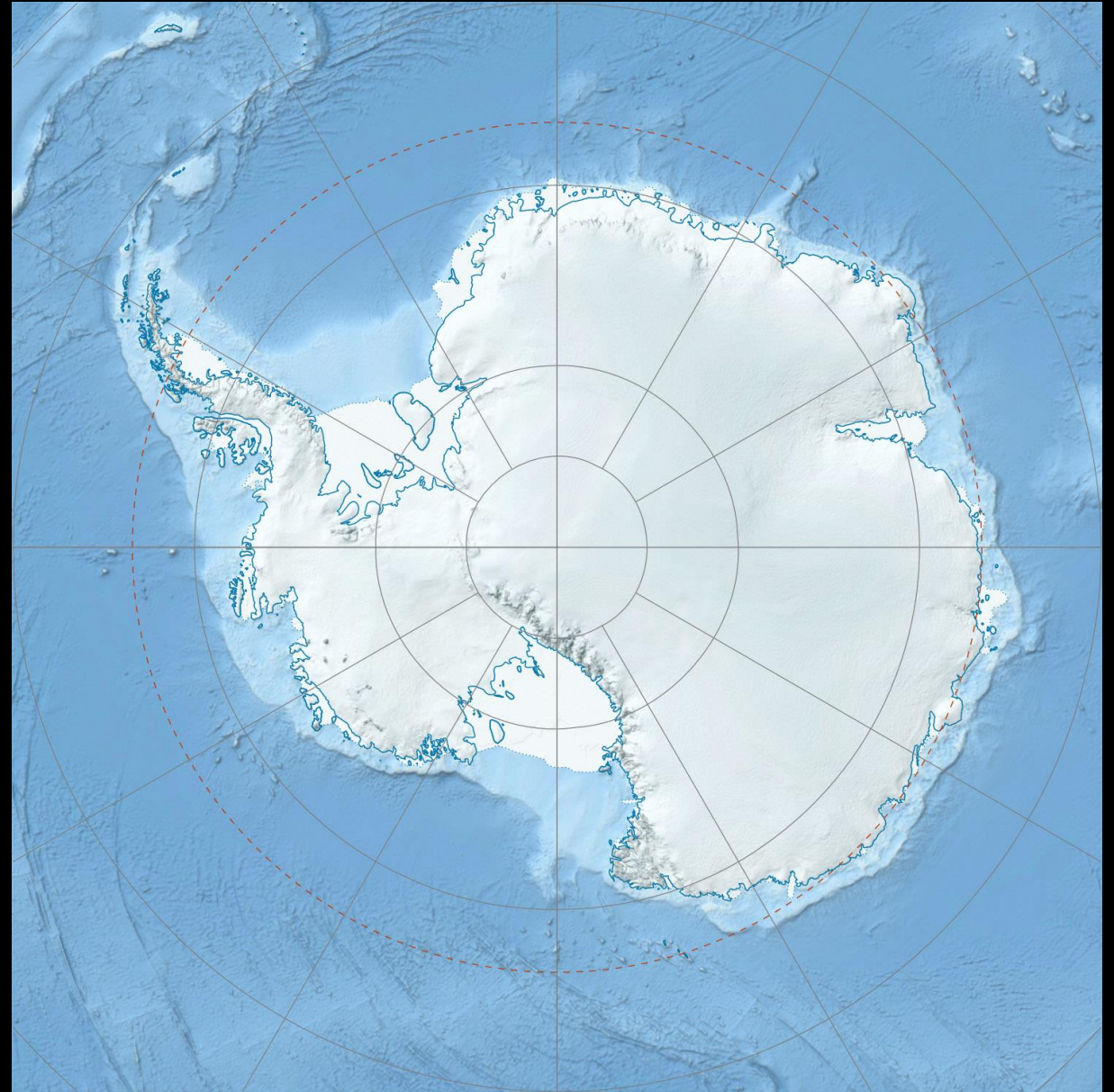


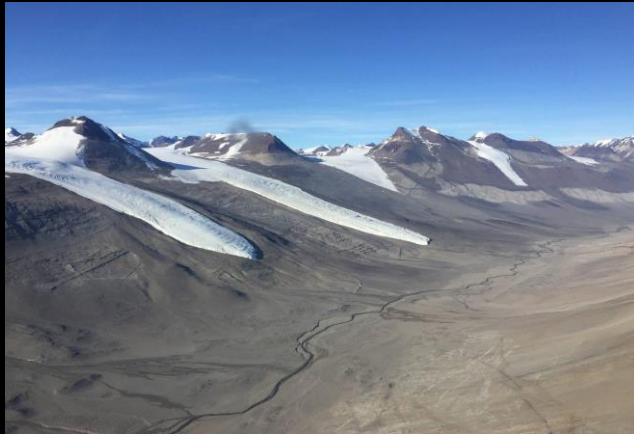



Chapter 1

Where is Antarctica located?

- Antarctica is located at the southernmost part of the Earth and is surrounded by the Southern Ocean. It is the fifth-largest continent and is almost entirely covered by ice, making it the coldest, windiest, and driest continent. Antarctica does not have any countries, and no one permanently lives there. However, it is home to several research stations from countries around the world. The South Pole, the southernmost point on Earth, is located in Antarctica.





What are the physical features of Antarctica?

- Antarctica's physical features are dominated by its massive ice sheets, which contain about 70% of the world's freshwater. The **Transantarctic Mountains** divide the continent into East and West Antarctica. The **Ross Ice Shelf** and the **Ronne Ice Shelf** are two of the largest floating ice shelves in the world. Antarctica also has several active volcanoes, including **Mount Erebus**, which is the southernmost active volcano on Earth. Beneath the ice, Antarctica has hidden mountain ranges, lakes, and rivers. Despite the harsh environment, there are areas like the **Dry Valleys**, where almost no snow or ice exists.



The transatlantic biome



Animals adapted to the transatlantic biome

- **Emperor penguin:** The largest of the penguin species, emperor penguins are well-adapted to the cold. They have thick layers of fat and feathers to keep them warm, and they huddle together in groups to conserve heat during the winter.

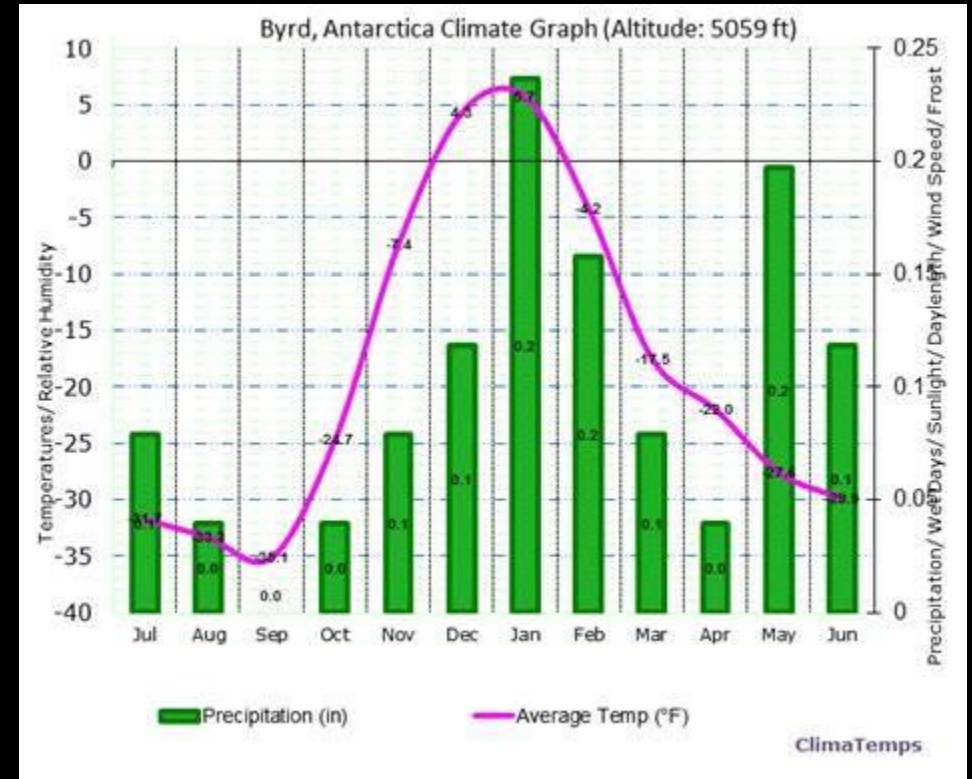
Plants adapted to the transatlantic biome

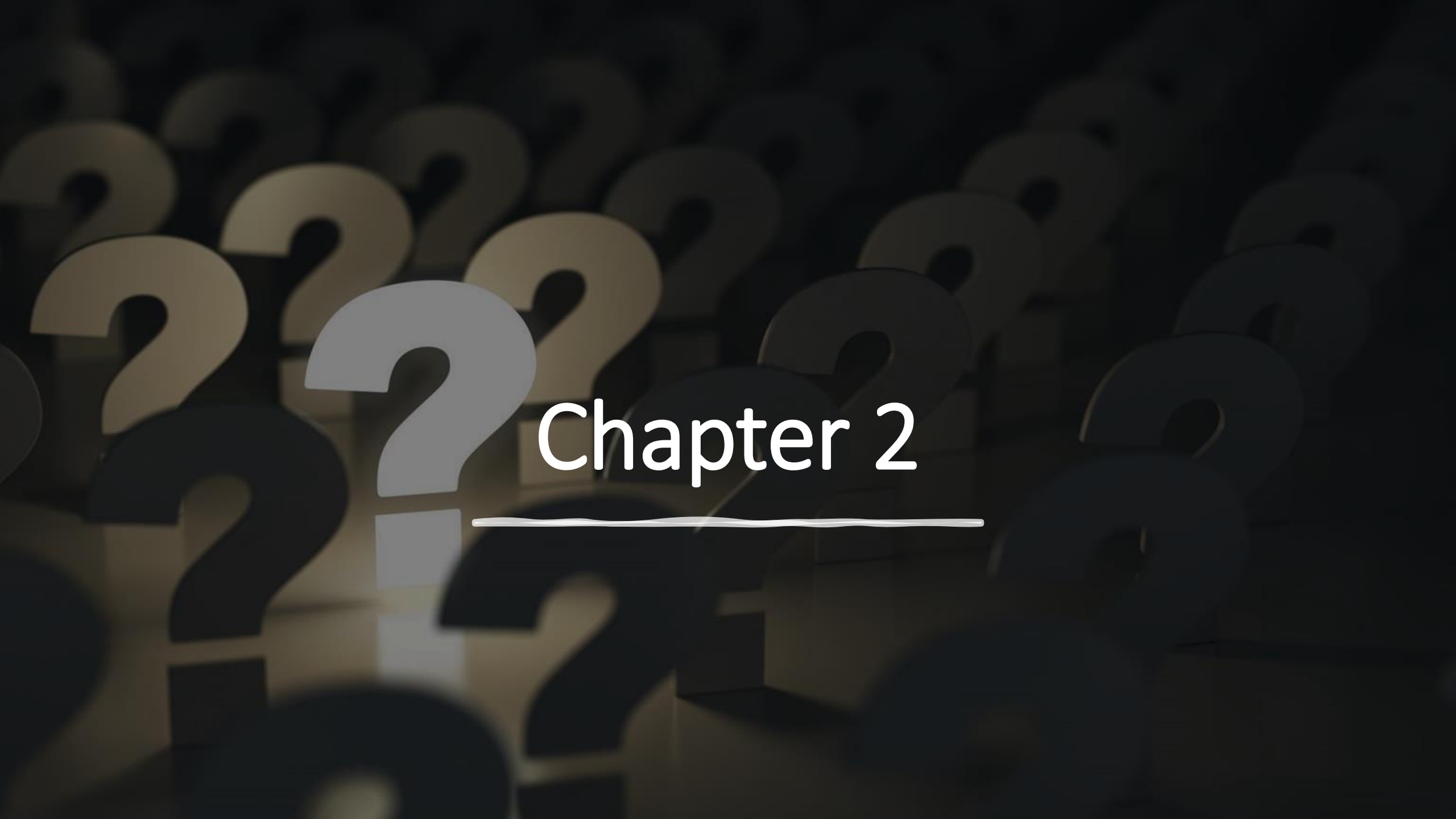
- **Lichens:** Lichens are the most common plants in Antarctica. They are extremely hardy and can grow on rocks in the coldest parts of the continent. They can survive long periods without water and endure freezing temperatures.



Climate in Antarctica

- Antarctica is the coldest place on Earth. The continent has an extreme climate with temperatures reaching as low as -89.2°C (-128.6°F) in some places. It is also the windiest continent, with winds reaching up to 200 miles per hour. Most of Antarctica is a desert, receiving very little precipitation, and whatever snow falls often remains frozen because of the cold temperatures. The coastal areas experience milder temperatures during the summer, but the interior remains extremely cold year-round. According to this 2020 climate graph,
- The climate of Byrd, Antarctica, is extremely cold and dry, with average temperatures ranging from -35°F in winter (July) to just below 0°F in summer (January). Precipitation remains minimal throughout the year, peaking at around 0.25 inches in January, while many months, such as August and September, see no measurable precipitation. Overall, Antarctica experiences harsh, freezing conditions with very little rainfall or snowfall.



The background of the slide is a dark, textured surface filled with numerous question marks of varying sizes and shades of gray and gold. A large, light gray question mark is positioned on the left side, partially overlapping the text.

Chapter 2



Tourist attraction

While tourism is limited, Antarctica offers unique experiences for those who visit:

- **South Pole:** A popular destination for adventurers and scientists alike, the South Pole is one of the most remote places on Earth.
- **Ross Ice Shelf:** Visitors can explore the world's largest ice shelf and witness the massive glaciers that flow into the sea.
- **Penguin colonies:** One of the main attractions in Antarctica is visiting the large colonies of penguins, particularly emperor and Adélie penguins.
- **Antarctic Peninsula:** This is the most accessible part of Antarctica for tourists, with its dramatic icebergs, mountains, and wildlife.



Restricted human presence

- No one is allowed to live in Antarctica permanently. The continent is protected by the **Antarctic Treaty**, which makes sure that Antarctica is only used for peaceful, scientific purposes. There are no cities or towns, and no one can move there to live. The only people who go to Antarctica are scientists and researchers who stay at research stations. These stations are set up by countries from all over the world, and they are only there to study the environment, climate, and wildlife. Because of the extreme cold, harsh conditions, and lack of resources, it isn't possible for anyone to live there for long periods. Tourists can visit, but in very small numbers, and they are closely monitored to make sure they don't harm the environment.



Chapter 3

A wide-angle photograph of a coastal dune landscape. A light-colored wooden boardwalk, constructed from horizontal planks, curves from the bottom center towards the middle ground, leading the viewer's eye into the scene. The boardwalk is flanked by dense, tall grasses in shades of green and yellow. In the background, rolling sand dunes are visible, some with exposed sandy tops and others covered in low-lying vegetation. A dark line of trees marks the horizon under a heavy, overcast sky with soft, diffused light. The overall mood is serene and natural.

Climate change

- One of the biggest issues facing Antarctica is climate change. Rising global temperatures are causing the ice sheets to melt, which contributes to rising sea levels. This is a major concern for coastal areas around the world. The warming temperatures also threaten the delicate ecosystems in Antarctica, putting species like penguins and seals at risk.



Overfishing

- The waters around Antarctica are rich in marine life, but overfishing, particularly of species like krill, threatens the delicate balance of the ecosystem. Krill are a crucial food source for many animals in Antarctica, and if their population declines, it could have a devastating impact on the entire food chain.



Tourism impact

- Although tourism in Antarctica is strictly regulated, the growing number of tourists visiting the continent poses a risk to the environment. Increased human activity can disturb wildlife and damage fragile ecosystems. There is also a risk of pollution from ships and planes, which could harm the pristine environment.





Thank You!