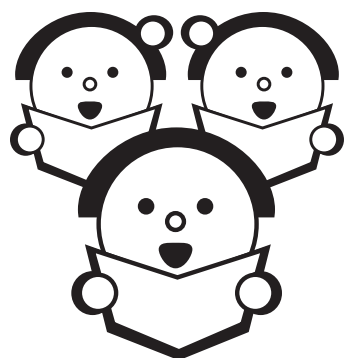


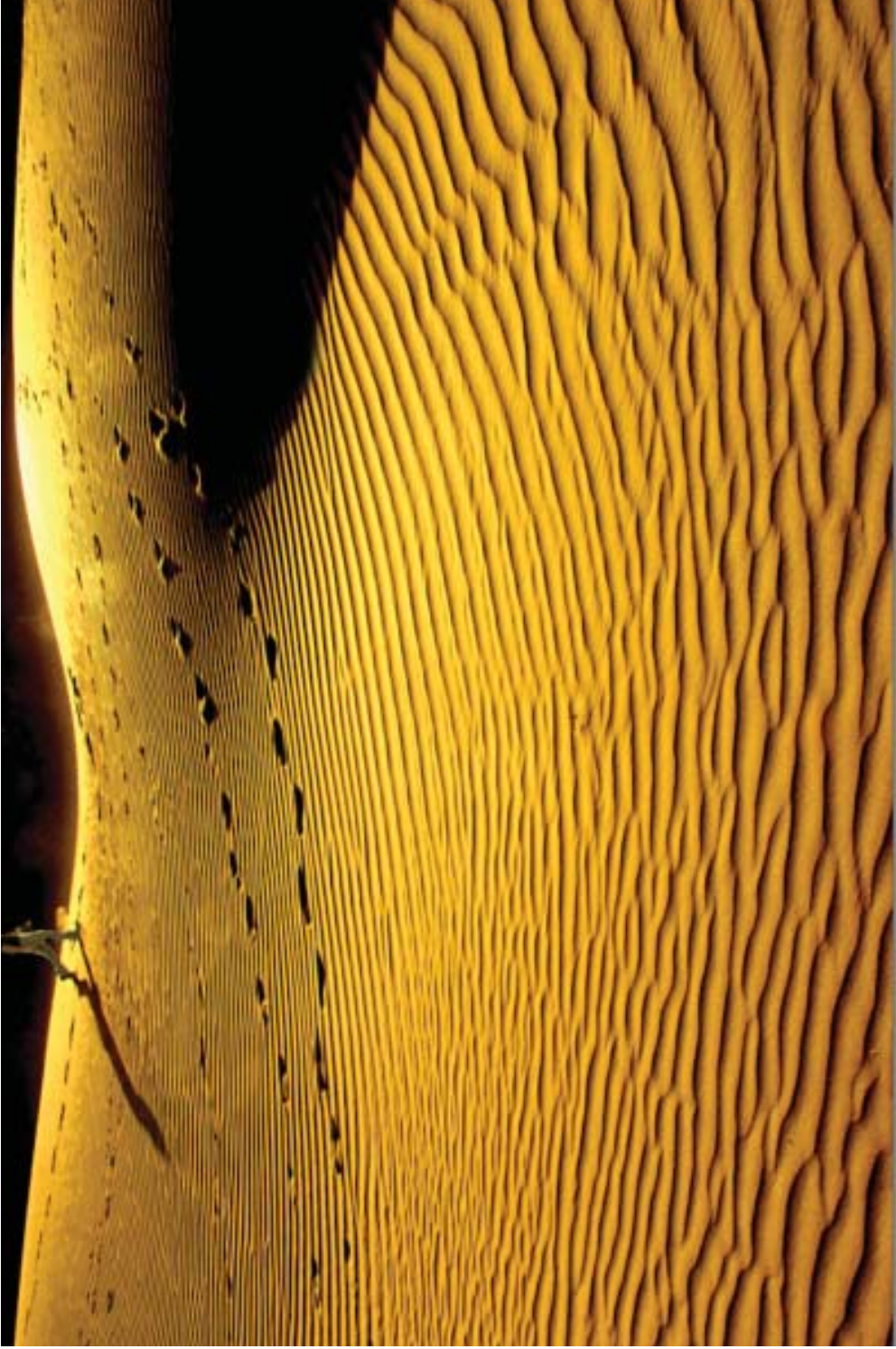
# REPRODUCIBLE MATERIALS





Tongass Rainforest by Flickr user Swanksalot





In the Deser/Feeling Like Walking by Flickr user: Horizon



Lonely Island by Flickr user gari.baldi



Bombed Hospital by Flickr user The Rocketeer





The Chugach Mountains by Flickr user 'ckindel'



Badlands by Flickr user Matt Binns

# INFORMATION SHEET 1

## COLD DESERTS



The Antarctic and the Patagonian (Argentina) cold deserts are situated in the southern hemisphere. They receive abundant rainfall in winter, and have fairly warm, short summers, with occasional rain.

Most plants found in cold deserts are deciduous with spiny leaves to protect themselves from extreme temperatures. Some lichen has been found in Torgerson island, Antarctica.

The most common animals found in cold deserts are jack rabbits, kangaroo rats,

kangaroo mice, grasshopper mice, and antelope ground squirrels.



Satellite image of Antarctica



Kangaroo Rat

1b



1a

Lichen on Torgerson Island

### Antarctica Desert

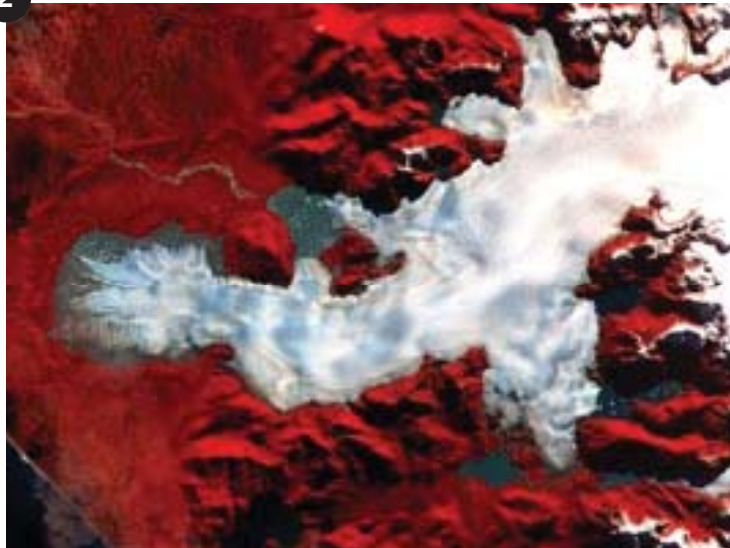
**Location:** Antarctic.

**Area:** 14 245 000 square kilometres.

**Precipitation:** 15mm./yr.

**Climate:** Cold

2



Satellite image of Patagonia

### Patagonian Desert

**Location:** Argentina.

**Area:** 673 000 square kilometres.

**Precipitation:** 26mm /yr.

**Climate:** Cold



## INFORMATION SHEET 2

# THE SAHARA DESERT



SAHARA MEANS  
DESERT IN ARABIC

The Sahara is the second largest desert after Antarctica. It is believed to be 2.5 million years old. Located in North Africa, it has one of the harshest climates in the world and yet, it is inhabited by some 2.5 million people, mostly from Egypt, Mauritania, Morocco, and Algeria. Because they move from region to region in search for better conditions, they are known as nomads. Daytime temperatures can reach 58 °C while at night it can plummet to -6 °C.



Satellite image of the Sahara Desert.

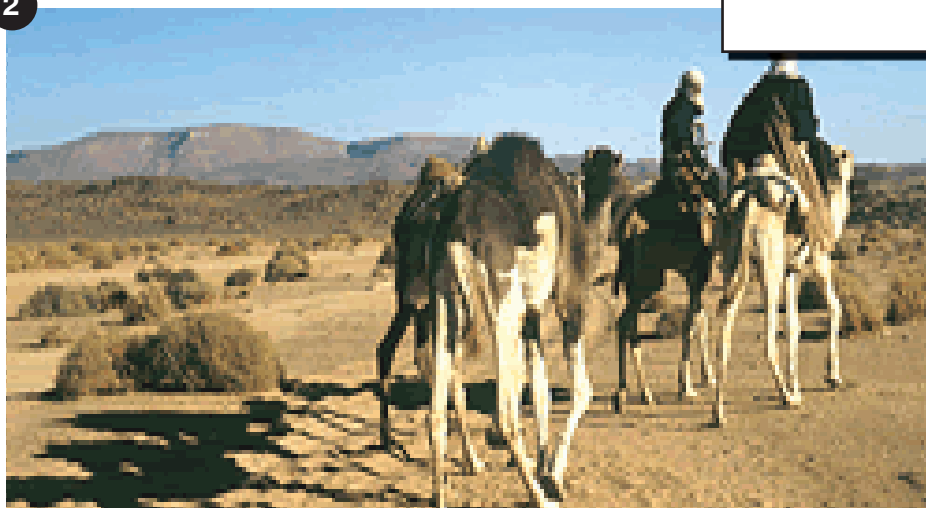
The largest city in the Sahara is the Egyptian city of Cairo, in the Nile Valley.

**Location:** North Africa.

**Area:** 9 million square kilometres.

**Precipitation:** 250mm/yr.

**Climate:** Hot



# INFORMATION SHEET 3

## THE GOBI DESERT

GOBI MEANS VERY LARGE  
AND DRY IN MONGOLIAN

The Gobi is the largest desert in Asia and the third largest in the world. Within 24 hours, the temperatures can vary from a freezing  $-32^{\circ}\text{C}$  to a sizzling  $58^{\circ}\text{C}$ . It is one of the few deserts that can boast of having frost and even snow capping its dunes at times.

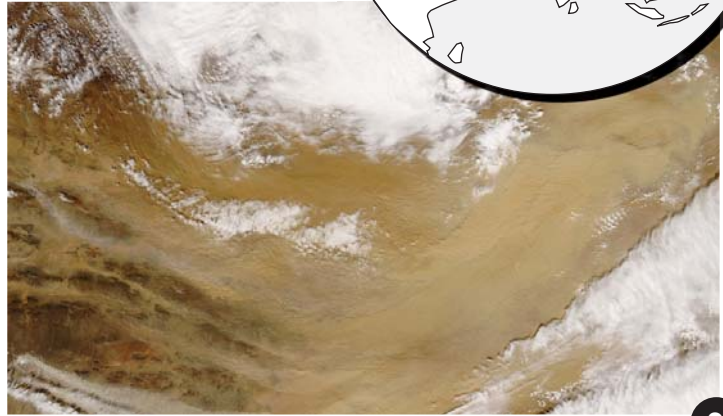
The Gobi desert is world renowned for its fossil finds, as well as dinosaur eggs. Historically, it was the birth place of the famous Mongolian empire (1206-1405), founded by Genghis Khan.

**Location:** Mongolia.

**Area:** 1 295 000 square kilometres.

**Precipitation:** 194mm./yr.

**Climate:** Cold and Hot



Satellite image of a dust storm in the Gobi Desert



1

2



Bactrian camels by the sand dunes of Khongoryn Els, in Mongolia.

# INFORMATION SHEET 4

## THE TAKLAMAKAN DESERT



1

A Tarim Basin mummy photographed by Aurel Stein circa 1910.

TAKLAMAKAN MEANS THAT "IF YOU GO IN, YOU WON'T COME OUT".

The Taklamakan is the largest "sand only" desert in the world situated in Central Asia, in the Western region of China. Formerly a fertile region due to lack of rainfall, it has become a barren, bleak, uninhabited 900

kilometer stretch of drifting sand dunes where very little vegetation thrives. It is extremely hot during the day and very cold at night.

Four thousand years old mummies of various ethnic origins including European have been found in this area.

2



**Location:** Central Asia-Western China.

**Area:** 270 000 square kilometers.

**Precipitation:** 10-38mm./yr

**Climate:** Extremely hot and cold.

Dust Storm in Taklamakan from space, June 25, 2005.



# INFORMATION SHEET 6

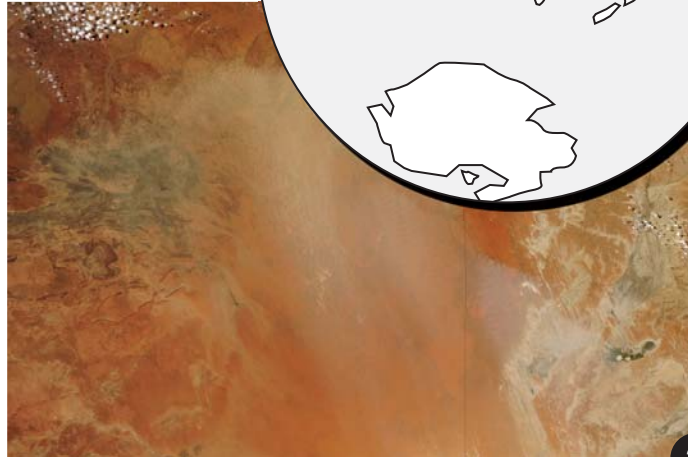
# THE SIMPSON

# DESERT



The vast Simpson Desert is situated in Central Australia. It has the world's longest parallel sand dunes, running in a north-south direction. While the vegetation holds the dune in position, the dune system protects the wide variety of desert flora and fauna from the harsh terrain that surrounds it.

The Simpson Desert Regional Reserve Park was created to protect the local desert wildlife. The landscape consists not only of dunes but also of lakes, grassland and woodlands. The trees soak up water from underground water.



Satellite image of a dust storm in the Simpson Desert



**Location:** Central Australia

**Area:** Approximately 170,000 square kilometres.

**Precipitation:** Less than 200 mm / year.

**Climate:** Hot.

# INFORMATION SHEET 7

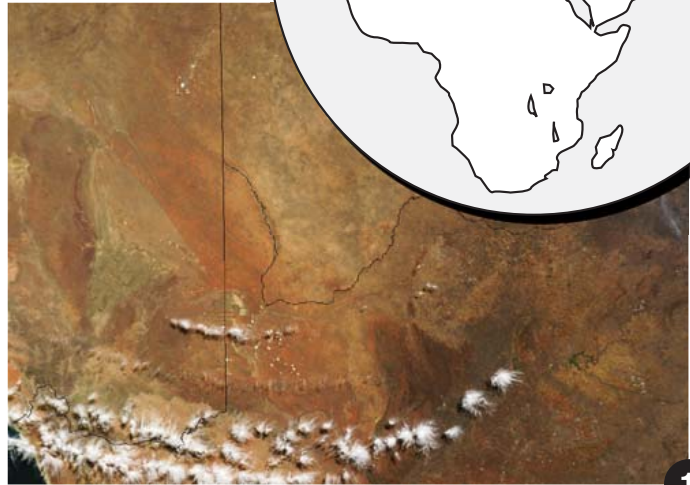
# THE KALAHARI

# DESERT



KALAHARI MEANS  
THE GREAT THIRST.

The Kalahari Desert is a large semi-arid desert of red sand covering much of Botswana, part of eastern Namibia, and the northern part of the Cape Province. It offers excellent grazing for animals after a rainfall. Its wildlife consists of baboons, elephants, antelopes, giraffes, zebras, and lions. Its Animal Reserves act as a sanctuary to animals and vegetation. It is also the ancestral land of the Bushmen.



1 Satellite image of the Kalahari Desert.

The temperatures of this semi-arid desert are more amenable than those found in a true desert. Summer temperatures range from 20°C to 40 °C and winter ones do not go much below 0 °C.

**Location:**  
Botswana

**Area:** 9 000 000  
square kilometres.

**Precipitation:** 175  
- 250mm./yr.

**Climate:** Semi arid,  
hot, cold.



2

Meerkat



3

Fairy Wren



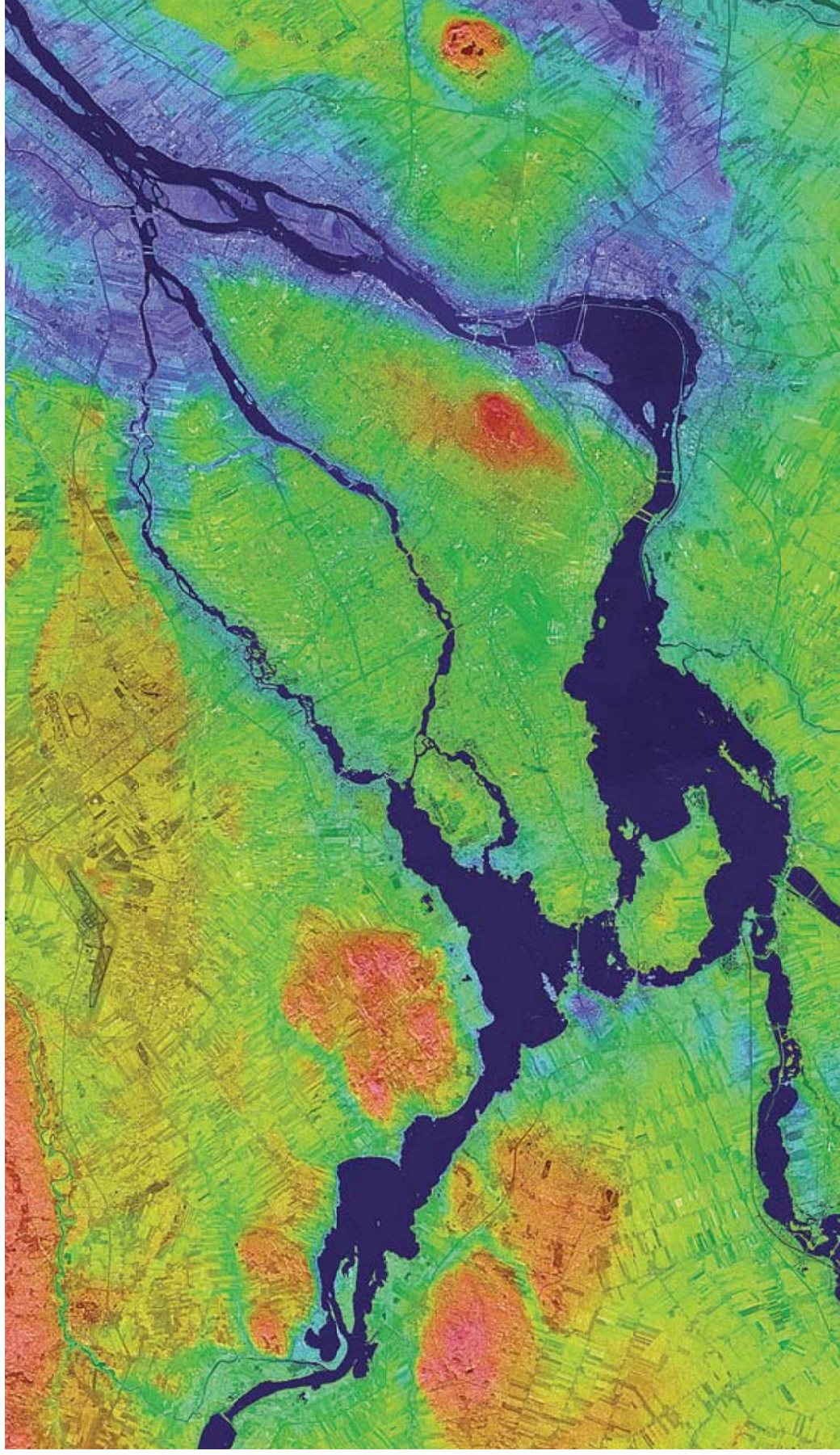
## **INFORMATION BOX 1: AERIAL VIEW OF MONTREAL**



Photo taken and graciously lent by Ron Clarke.



## INFORMATION BOX 2: MONTREAL RIVER SYSTEM



RADARSAT-1 data – Courtesy of the Canadian Space Agency 1999

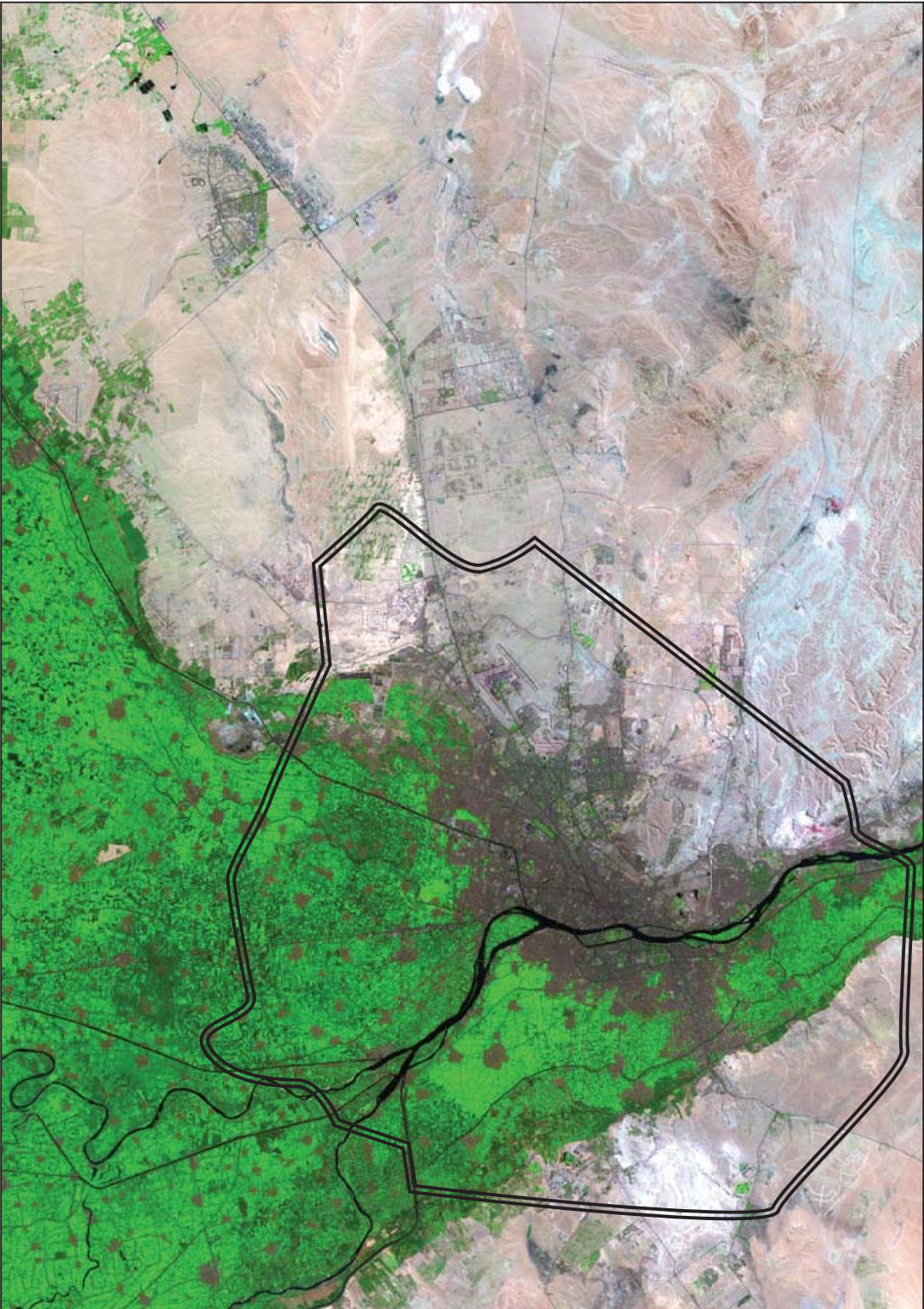


# INFORMATION BOX 1: AERIAL VIEW OF CAIRO





# INFORMATION BOX 2: CAIRO RIVER SYSTEM



Courtesy of the NASA Earth Observatory



# CREDIT AND REFERENCES

## Page numbers on teacher guide:

**The Mojave Desert**, p. 27, 1. Satellite image of the Mojave Desert and Los Angeles, Earth Sciences and Image Analysis Laboratory, NASA Johnson Space Center. 2 & 3, United States Geological Survey.

**Cold Deserts**, p. 20, 1a & 1b, Kangaroo rat and Lichen, Dr. Lloyd Glenn Ingles, © California Academy of Sciences. manzanita@calacademy.org. 2 & 3, Satellite image of Patagonia, courtesy NASA U.S./Japan ASTER Science Team.

**The Gobi Desert**, p. 22, 3. Satellite image of Gobi Desert dust storm, NASA Visible Earth. 1. Doron, Wikimedia. 2. Bactrian Camels, Frances Elizabeth Hanan © California Academy of Sciences, manzanita@calacademy.org.

**The Sahara Desert**, p. 21, 1. Sahara desert as seen from space, Nasa Earth Observatory 2. Dromedary, Sahara desert, Wikimedia.

**The Kalahari Desert**, p.26, Satellite image of Dust Storm, NASA. 2. Meerkat, Muriel Gottrop, Wikimedia (April 2005). 3. Fairy Wren, LiquidGhoul, Wikimedia.

**The Simpson Desert**, p.25, 1. Wikimedia. 2. Camels in the Simpson desert, 1936, Wikimedia. 3. Satellite image of a dust storm, NASA.

**The Namib Desert**, p.24, 1. Satellite image of Namib Desert, NASA. 2. Dune Sea, NASA. 3. Dune 7, Wikimedia.

**The Desert of Death**, p.23, 1. A Tarim Basin mummy, Aurel Stein, circa 1910, Wikimedia. 2. Dust Storm in Taklamakan from space, June 25, 2005, NASA.

**Aerial View of Montreal**, p.32, © Ron Clarke, consultant Lester B Pearson School Board.

**Satellite View of Montreal**, p.33, RADARSAT-1 data, Canadian Space Agency, 1999.

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