

# Activities for Secondary Students

## Survival skills

Read the following extract from the diary kept by Frank Hurley during 1912–1913:

...The Blizzard raged throughout the night and this morning little alteration has taken place. In our tiny tent we can barely move about, while to converse with one another we have to raise our voices to a shout so terrific is the swish of drift and the blizzard din... [Our] indispensable garments are frozen as stiff as boards, and it feels like putting ones legs into stove pipes to don the trousers. I have been struggling with a helmet, frozen up with drift, and as for my mits they are in a worse condition. The drift is frightful – it does make things in an hellish mess. All day we have been confined to the tent and as it is now 8.45 p.m. we are toggling up into our bags to await favourable conditions.

State Library of NSW: MLMSS 389/1



What physical and psychological challenges did Hurley experience on this sledging trip? What preparation do you think that expeditioners would need to undertake to be ready for these challenges? How do you think that you would cope with the conditions Hurley describes?

## Australian interests

During the 1920s Australia and Britain became aware that several countries, including Norway and France, were looking to stake territorial claims in Antarctica. This led to increased pressure to mount a further expedition to formalise territorial claims in the region and explore the economic potential of Antarctica. Read the following extract from the Statement to the Parliament by Prime Minister Bruce, on 21 February 1929, about the planned Australian Expedition to the Antarctic:

The forthcoming expedition will seek to effect a variety of objects, mostly of a scientific nature. The exploration and mapping out of that part of the coastline which could not be completed by the Mawson expedition in 1911 will be undertaken, scientific and meteorological work will be carried out, and investigations into the economic resources of the region will be made.

NAA:A461, D413/4



Using this source as evidence, what do you think that Prime Minister Bruce and his government hoped to achieve for Australia by sending the 1929–30 expedition to Antarctica?

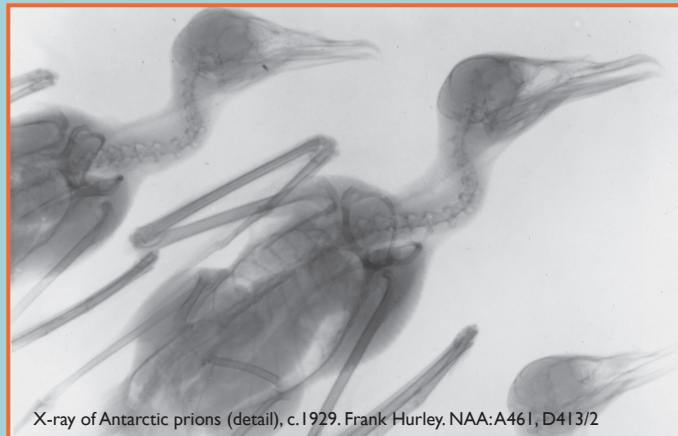
The 12 nations, including Australia, that signed the Antarctic Treaty on 1 December 1959 agreed to put aside territorial claims to Antarctica and to promote freedom of scientific research and non-militarisation in the region. The treaty has been called the first disarmament treaty of the nuclear age. Today 48 countries participate in the Treaty process. In 1991 these countries agreed to the Protocol on Environmental Protection to the Antarctic Treaty (the Madrid Protocol), which declares Antarctica to be a natural reserve and prohibits mining. Further details of the Antarctic Treaty System can be found at <http://www.ats.aq/e/ats.htm>.



What are the main arguments for and against realising the economic potential of the Antarctic region through mining?

## Antarctic observations

The Southern Ocean is part of a complex system which includes the Antarctic ice sheet, sea ice and the atmosphere. Scientists need a better understanding of this interactive system in order to improve climate change projections, weather predictions and estimates of sea-level rise. Scientific



X-ray of Antarctic penguins (detail), c.1929. Frank Hurley. NAA:A461, D413/2



Collecting sea ice cores, SIPEX/2007 (Sea Ice Physics and Ecosystem experiment). S Zicus. AAD: IA13695

observations have now been conducted in Antarctica for 100 years; they include drilling ice cores, which contain information on the earth's climate in the past, and using these to develop models of climate change.



Imagine that you have the chance to interview a group of Antarctic scientists about global warming. Write five questions that you would want them to answer.

## Changing attitudes

The locals in Antarctica are birds, penguins, seals and whales. From the first time humans were in Antarctica, the local wildlife has been studied and exploited for food and resources. Mawson and his expeditioners lived off the land where possible, by hunting seals and penguins for food. Exploitation is no longer allowed and even research methods (such as automatic penguin weighing stations) are designed to have minimum impact on wildlife communities.



In a class discussion, reflect on why attitudes to Antarctic inhabitants have changed:

- What was the reason that scientists on early expeditions took live specimens of Antarctic wildlife? How would these specimens have been collected?
- How would this image (left) have been taken?
- What impacts have changed scientific practices had on the value of the preserved specimens that were collected during earlier expeditions?
- What are the reasons for changes in scientific practice?