
U003-06

Room: Function Room A

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Life on and under the Antarctic ice-sheet

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Now the Antarctic ice-sheet is thought to be the last biosphere on this planet. Some bacteria are reported at the surface of ice-sheet under extremely low temperature and high UV radiation, and the existence of unique ecosystem is expected in the subglacial lakes at the bottom of ice-sheet. Large number of liquid water bodies have been reported since 1970s under the ice sheet, and the largest one is situated just below the Russian Vostok Station, and is about 14,000 km² in area. Extremely high pressure, low temperature, absolute darkness and over one million years isolation are expected, but some organisms, at least bacteria are believed to live in the lakes. Within a couple of years, Russian ice drill will penetrate into Vostok lake through the ice-sheet of over 3,500 m thick, and the first sample of lake water should be retrieved. What can we find in the "lost world" under the ice?

Keywords: Antarctica, ice-sheet, life, subglacial lakes