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### On the cover

On 25 February 2022, scientists recorded near-record below normal sea ice extent in the Antarctic. With an area of 1.9 million km<sup>2</sup>, this is the first time that sea ice surrounding the continent has been below 2 million

km<sup>2</sup> since 1978. The 2022 sea ice extent is lower than five years earlier, in 2017, where sea ice also reduced close to 2 million km<sup>2</sup>. The cover photo of sea ice (credit: Yingqi LIANG) was taken on 30 January 2022 onboard Xuelong2 in the Antarctic Cosmonauts Sea. A News & Views article (beginning on Page 1591) provides an initial examination of the dynamic and thermodynamic processes that played a role in this near-record low sea ice event.