Emma Fisher emfish@bas.ac.uk

Logistics

Oral

REWIND: British Antarctic Survey Ice Core Drilling Project

|  |  |
| --- | --- |
| Emma Fisher1, James Veale1, Liz Thomas1  | 1British Antarctic Survey, Cambridge, United Kingdom |

The British Antarctic Survey (BAS) have recently undertaken numerous ice drilling projects, including the first phase of the multi-year REWIND project. This project proposes to drill through the Antarctic Peninsula ice sheet to bedrock, retrieving an ice core from the entire depth of approximately 716 m using the BAS shallow and intermediate ice core drills. The principal scientific objective is to obtain new reconstructions and a high-resolution record of sea ice, westerly winds, and CO2 in the Pacific sector of the Southern Ocean, during the Holocene which spans approximately the past 11,000 years.

During the 2024-25 season, geographical surveys were conducted to finalise the drilling location, and cores to a depth of 70 m were drilled at the chosen site. A new firn-air sampling system was successfully tested, providing CO2 measurements to a depth of 65 m. Equipment is currently overwintered at the camp, and drilling will continue in the 2025-26 season to bedrock. This contribution will focus on the progress and future of the REWIND project, and briefly highlight other recent drilling project achievements.