

Figure 1. MODIS imagery from 20 December 2011 of the Amery Ice Shelf, East Antarctica (left). Zoomed views of the five rifts monitored in this study (boxes, right), color coded by activity level (legend in Fig. 1).

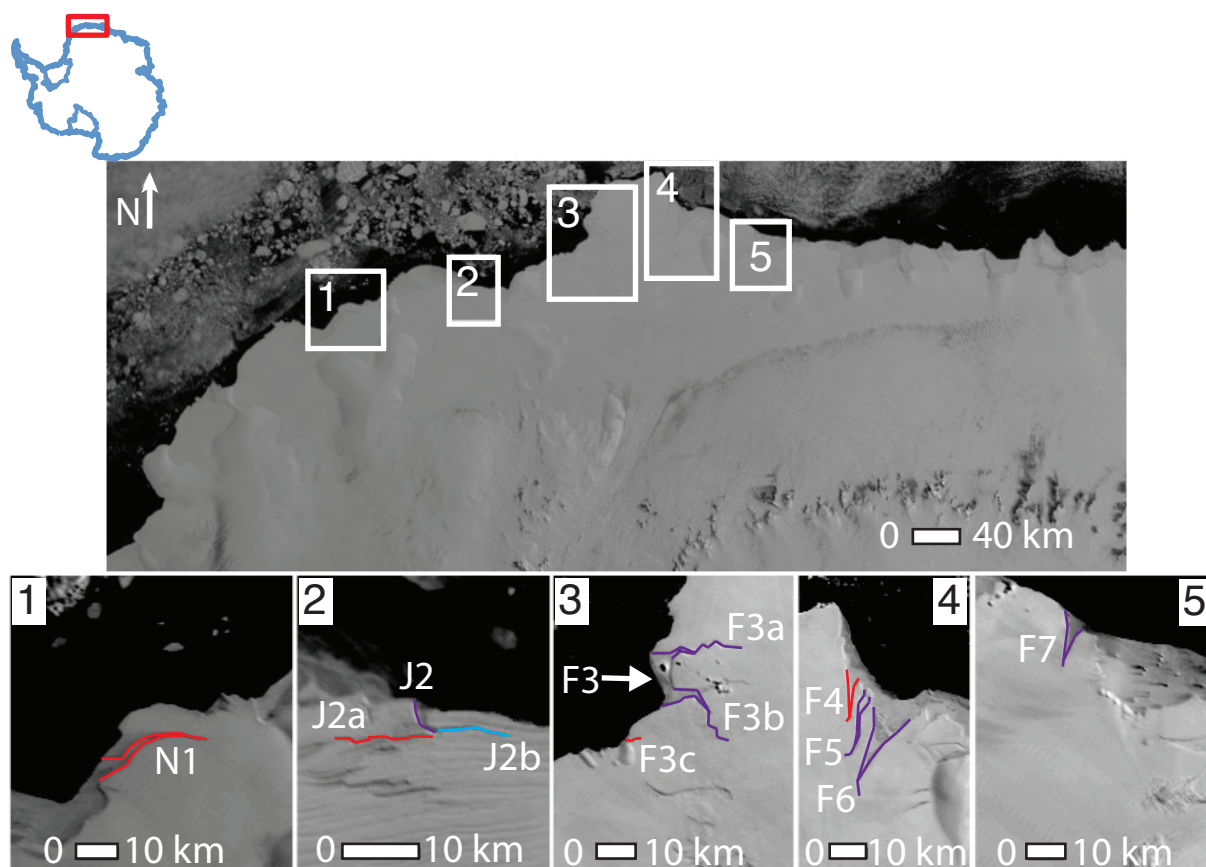


Figure 2. MODIS imagery of the Fimbul Ice Shelf acquired 28 November 2005 (top). Zoomed boxes (bottom) show the 11 rifts observed for this study. Rift F3 calved an iceberg prior to this study's observation period, but served as an initiation boundary for F3a and F3b.

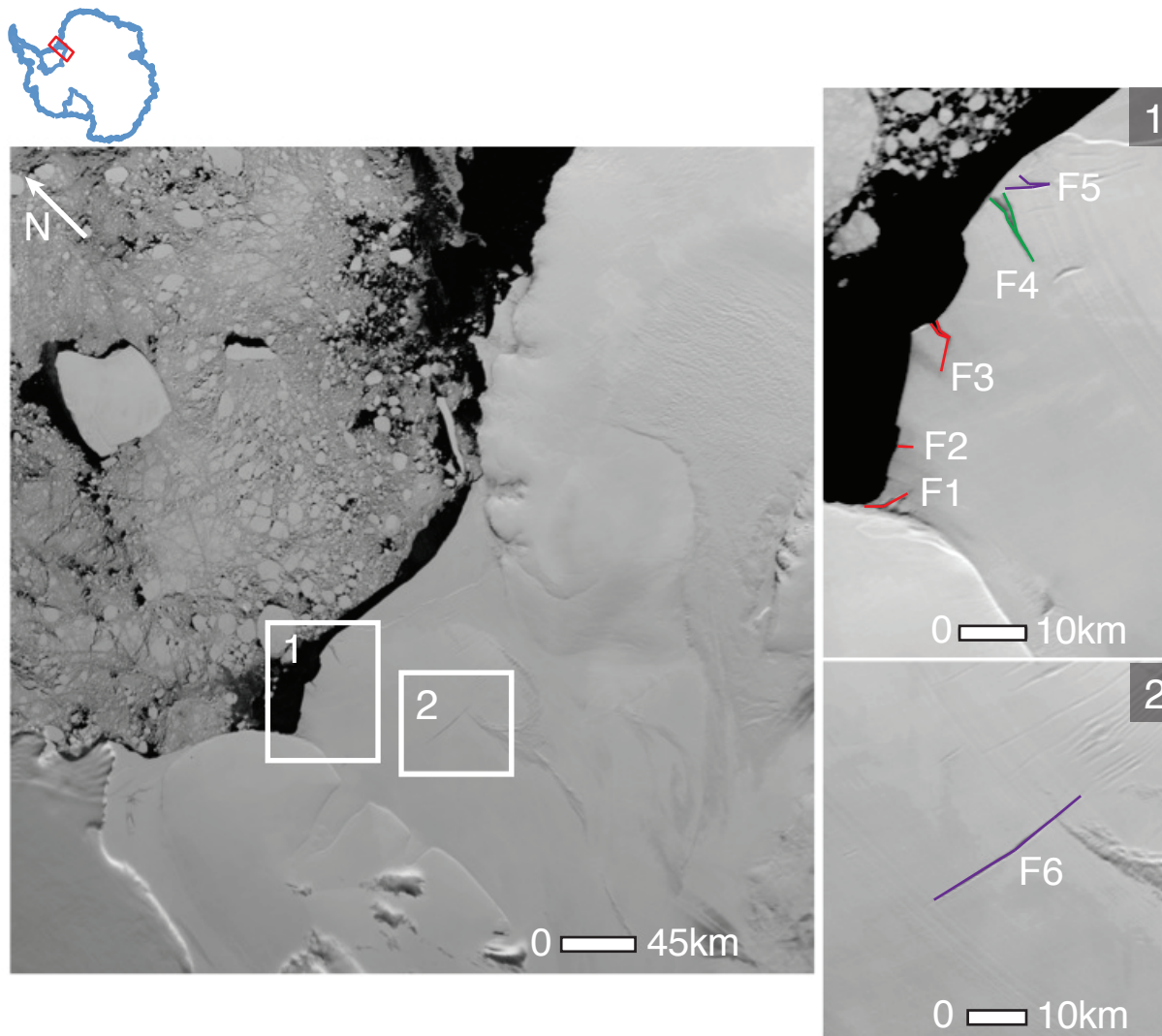


Figure 3. Filchner Ice Shelf (left) as imaged by MODIS acquired 13 February 2011 (left). Zoomed boxes (right) showing the six rifts observed for this study in MODIS imagery acquired 02 January 2003.

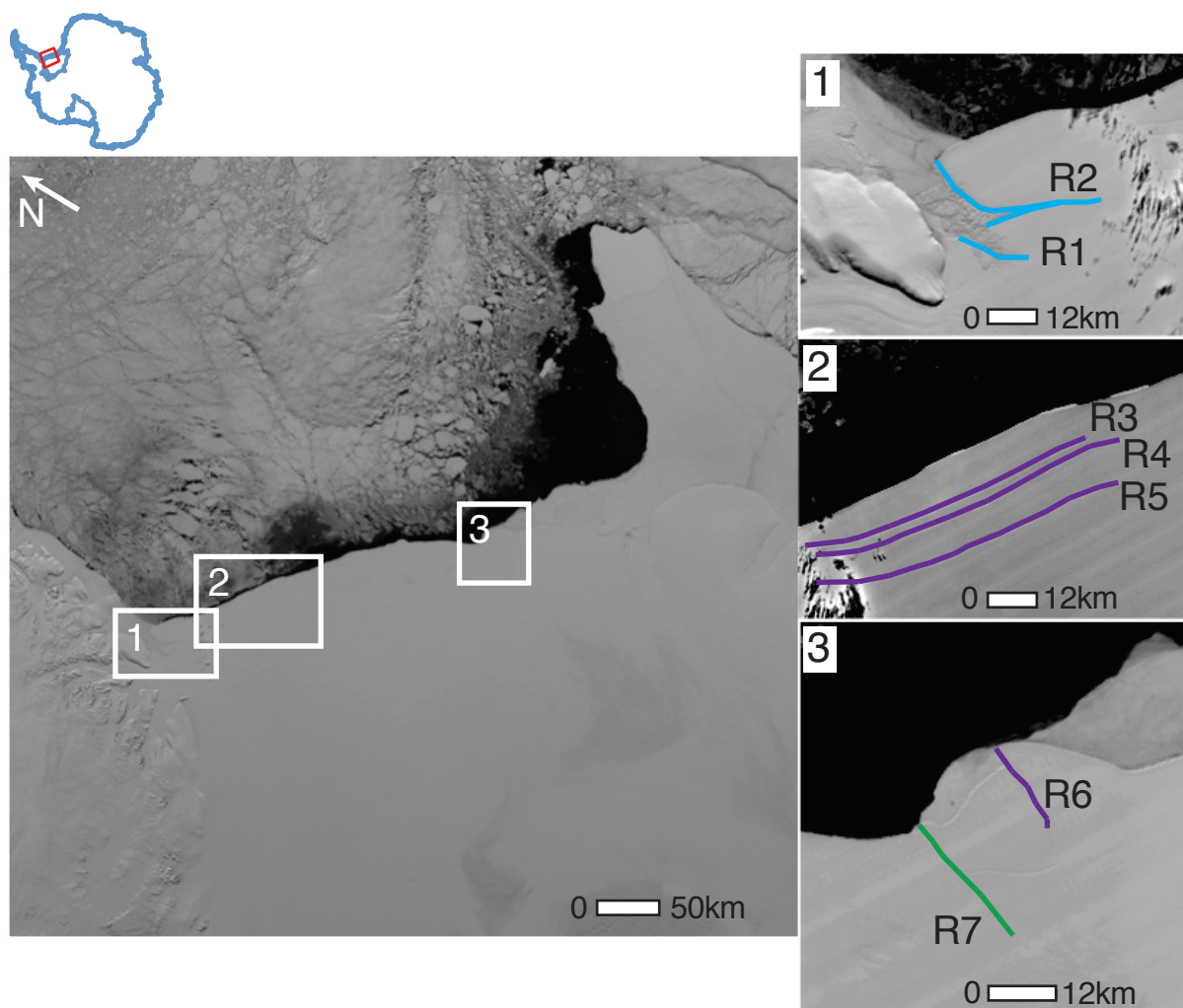


Figure 4. The Ronne Ice Shelf in MODIS imagery acquired 01 December 2007 (left). Zoomed boxes highlight the seven rifts observed in this study.

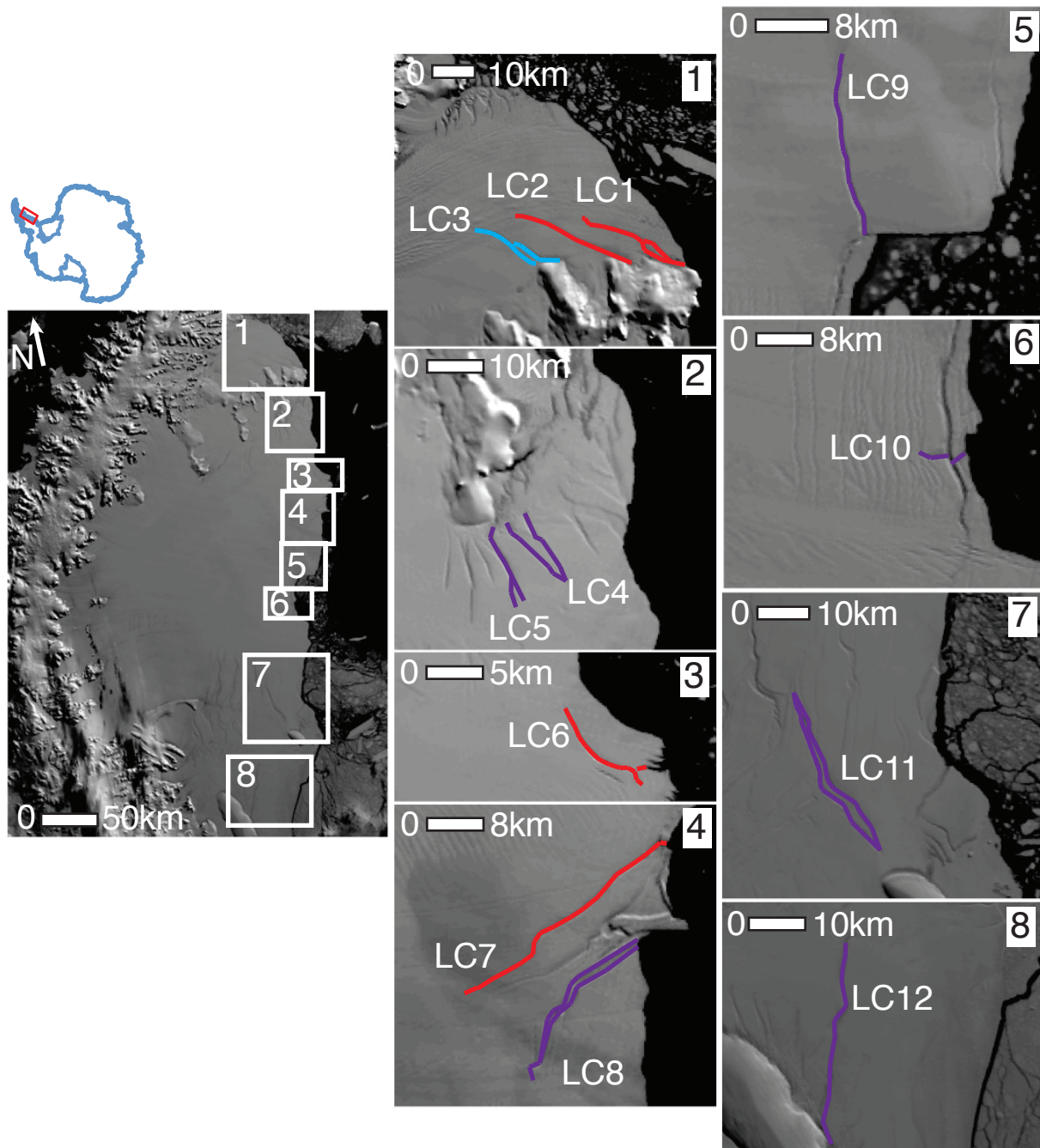


Figure 5. MODIS imagery from 17 March 2002 of the Larsen C Ice Shelf and remnant Larsen B Ice Shelf on the Antarctic Peninsula (right). Zoomed images of its northern rifts shown in the center column. To the right are the southern set of rifts observed in this study, a total of 11 rifts on this ice shelf.

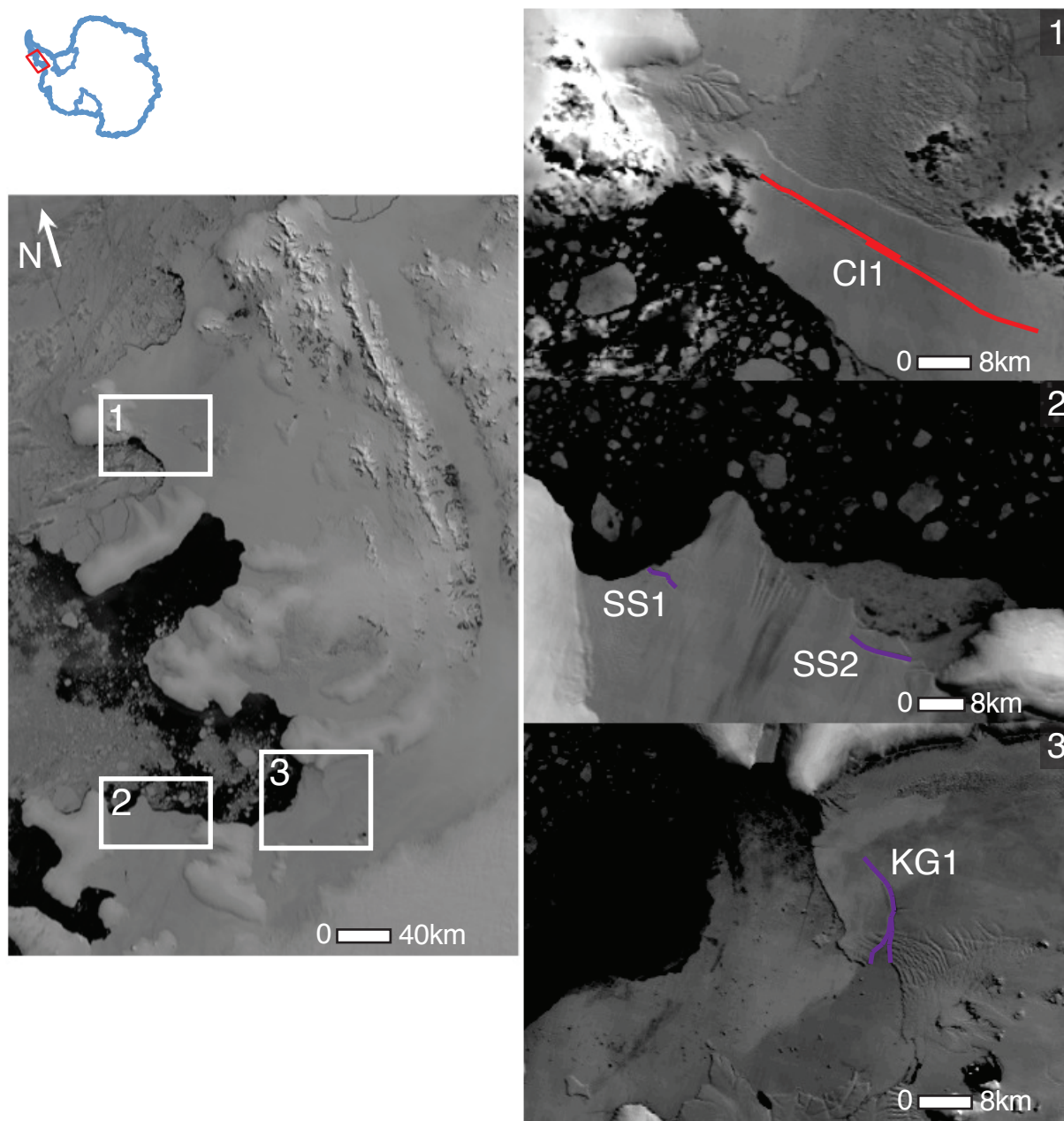


Figure 6. MODIS imagery from 30 December 2004 of the Wilkins, Stange, and George VI ice shelves on the Antarctic Peninsula. Zoomed images on the right exhibit the rifts observed for this study in each of the three shelves: (1) Wilkins Ice Shelf, (2) Stange Ice Shelf, and (3) George VI Ice Shelf.

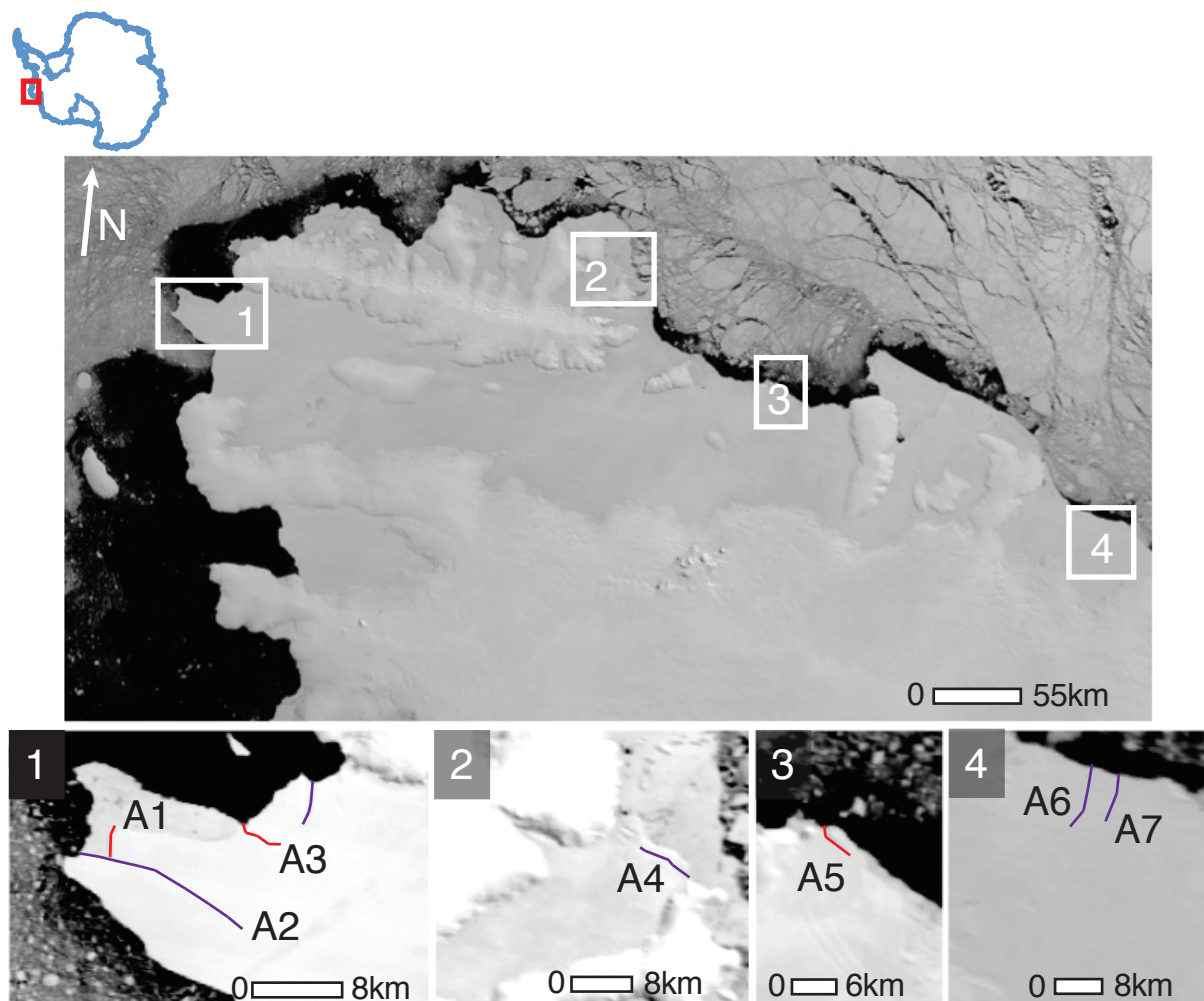


Figure 7. Abbott Ice Shelf in MODIS imagery acquired on 10 January 2011. Zoomed boxes (bottom) show the seven rifts observed for this study.

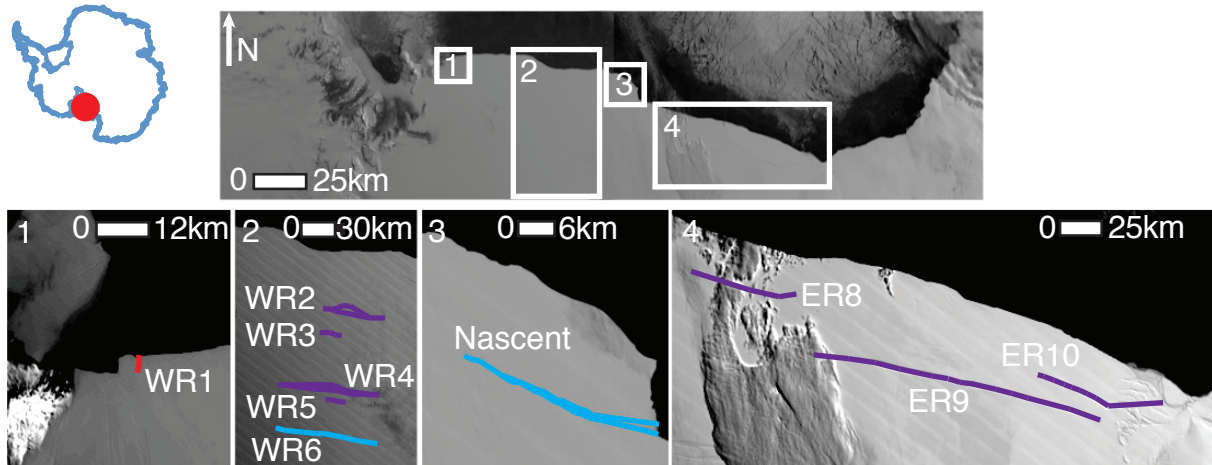


Figure 8. Ross Ice Shelf in MODIS imagery acquired on 16 November 2011 (top). At the bottom are zoomed images to highlight the ten rifts observed in this investigation.

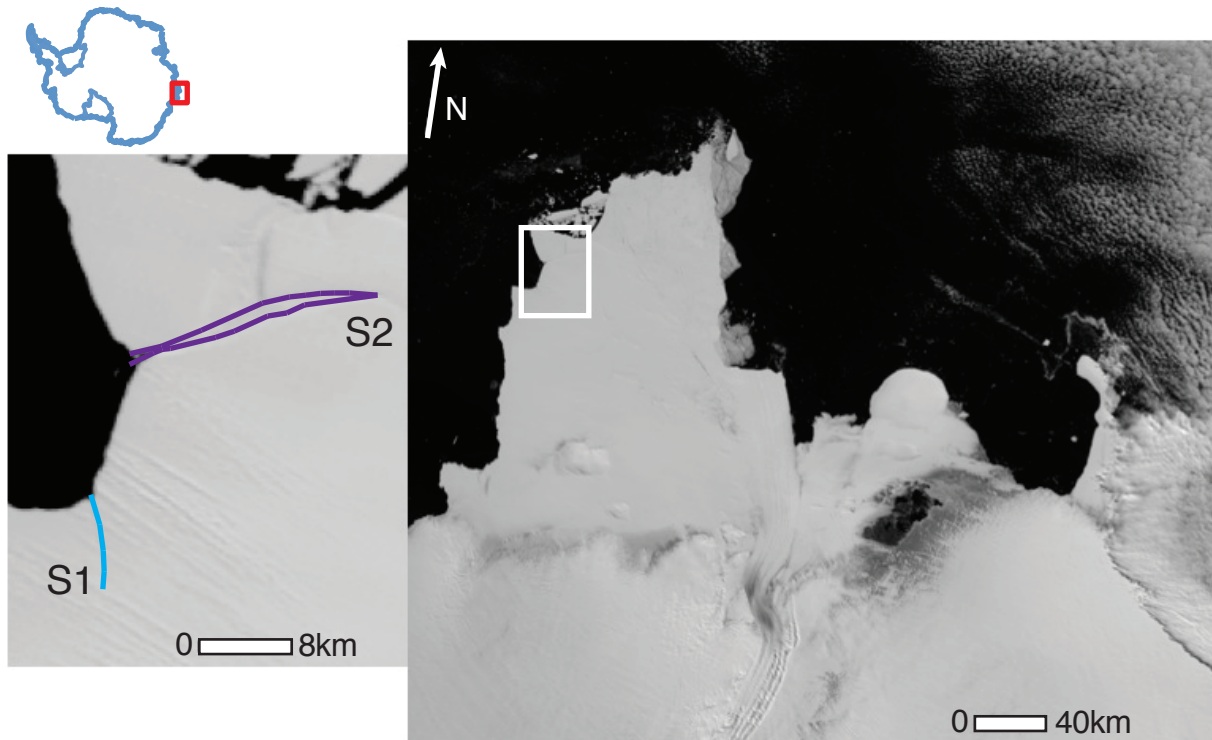


Figure 9. The Shackleton Ice Shelf in MODIS imagery from 20 February 2012 (right). On the left is a zoomed view of the two rifts measured in this study, stemming from a previously-calved area that spurned an iceberg immediately preceding the observing period.

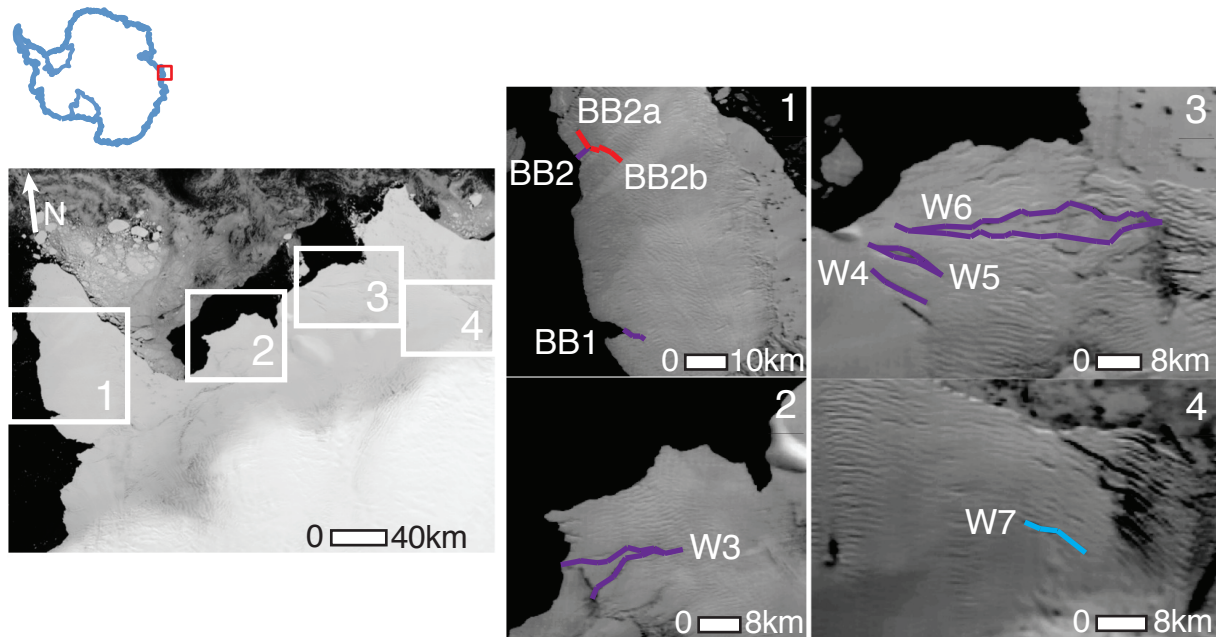


Figure 10. West Ice Shelf in MODIS imagery from 06 February 2004 (left). The center blocks highlight the western set of rifts observed for our study, the eastern set is shown in the zoomed images at right. Initially observing just seven rifts on the Shackleton, rift BB2 (top center) split into two new rifts (BB2a and BB2b) that we continued to observe over the decade.

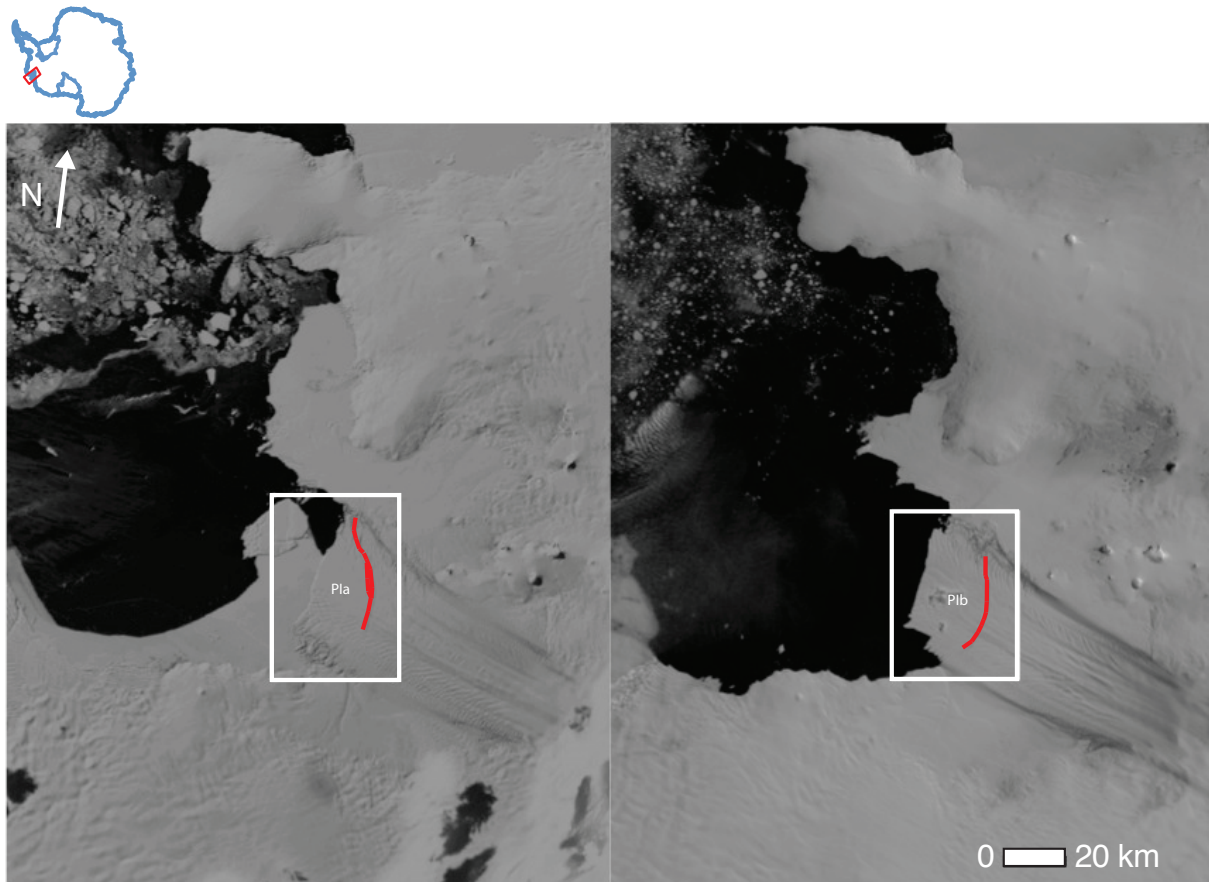


Figure 11. Two MODIS images of Pine Island Glacier acquired five years apart. Top: An image from 19 March 2007 shows rift PIa, which calved an iceberg in October 2007. Bottom: An image from 01 January 2012, showing that rift PIb has severed the ice approximately three-quarters across the glacier.

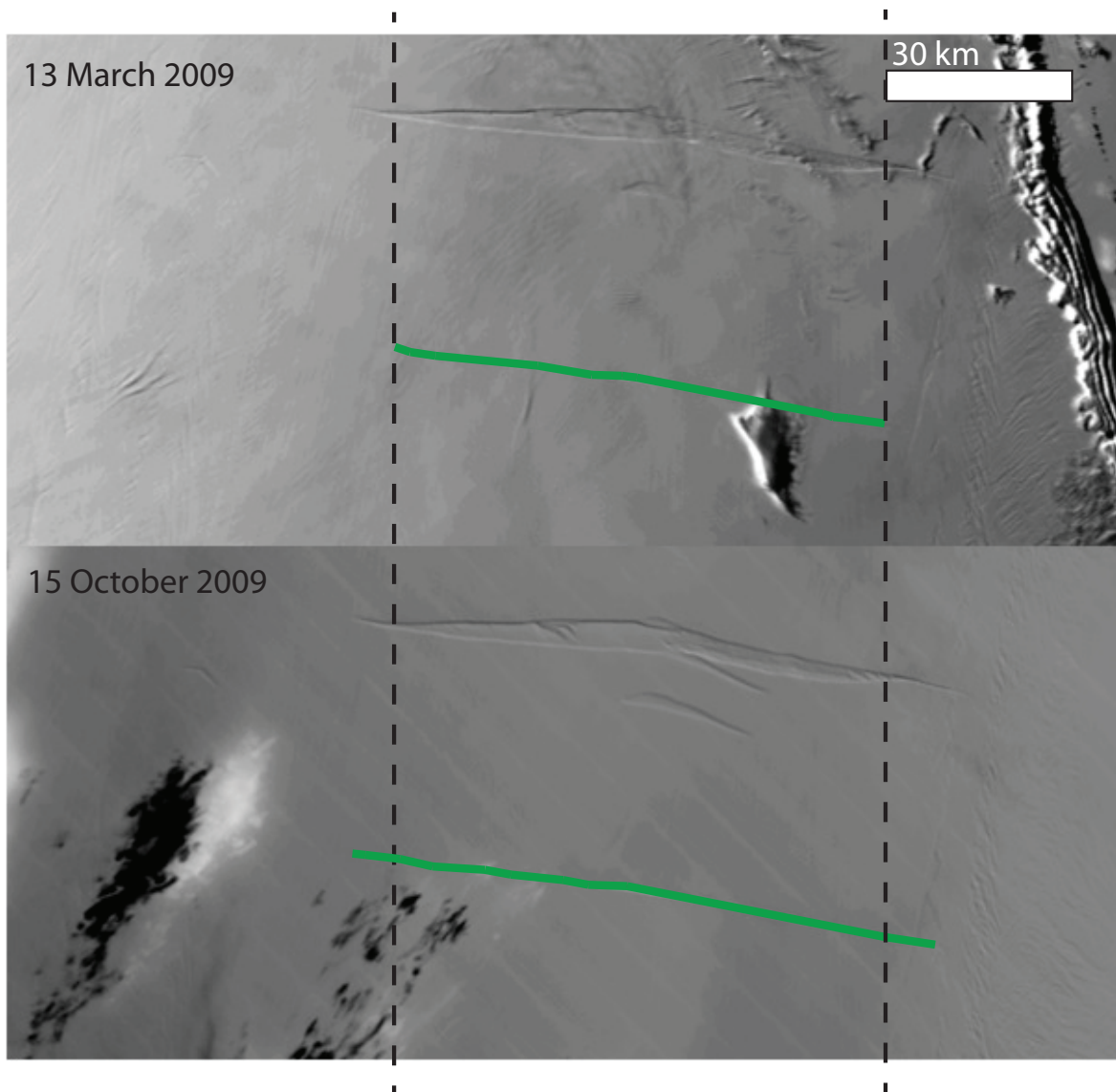


Figure 12. An example of wintertime propagation exhibited by rift WR6 in the Ross Ice Shelf between 13 March and 15 October 2009. Vertical dashed lines show length of rift in March 2009 (top), bottom image shows the same rift in October 2009, where it has lengthened past the length of the rift before the winter.