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## Evolution of supraglacial lakes on the Larsen B ice shelf in the decades before it collapsed

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The Larsen B ice shelf collapsed in 2002 losing an area twice the size of Greater London to the sea (3000 km<sup>2</sup>), in an event associated with widespread supraglacial lake drainage. Here, we use optical and radar satellite imagery to investigate the evolution of the ice shelf's lakes in the decades preceding collapse. We find 1) that lakes spread southwards in the preceding decades at a rate commensurate with meltwater saturation of the shelf surface, 2) no trend in lake size, suggesting an active supraglacial drainage network which evacuated excess water off the shelf and 3) lakes mostly re-freeze in winter but the few lakes that do drain are associated with ice break up 2-4 years later. Given the relative scale of lake drainage and shelf break up, however, it is not clear from our data whether lake drainage is more likely a cause, or an effect, of ice shelf collapse.