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Rapid discharge connects Antarctic subglacial lakes

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Although much of the base of the East Antarctic ice sheet is melting, as is evident from over 140 subglacial lakes, very little is known about the basal hydrology of this huge ice mass. Such knowledge is critical to understanding the habitats of subglacial lakes, the flow of ice, the development of glacial landforms and the transfer of water to the ice sheet margin. In this contribution we present evidence from satellite observations of ice elevation change for the rapid draining of a large subglacial lake within the Adventure Subglacial Trench in central East Antarctica. In just over a year, the outburst water flows quickly (we calculate a maximum flow rate of $\sim$50 cumecs) along $\sim$250 km of the trough axis and collects in a series of smaller lakes, which subsequently drain. If the process identified is common, as is reasonable to assume, it has significant implications for the environments of subglacial lakes, the transfer of material between lakes, and the potential for contamination of lakes by future *in situ* exploration.