



Alpine glaciers in western Canada approach their smallest size of the past 7000 years

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Most alpine glaciers in the Northern Hemisphere reached their maximum extent of the Holocene between AD 1600 and 1850. Since the late 1800s, however, glaciers have thinned and retreated, mainly due to atmospheric warming. Glacier retreat in western Canada and other regions is exposing fossil tree stumps, soils, and plant detritus that, until recently, were beneath tens to hundreds of metres of ice. Plant fossils in many glacier forefields have been radiocarbon dated; the ages indicate that many glaciers probably are smaller today than at any time in the past 7000 years, when insolation in the Northern Hemisphere significantly decreased. This evidence, in turn, suggests that the rate of glacier recession in the twentieth century is unprecedented during the past several millennia. Glaciers in western Canada have reached minimum extents only 150 years after they achieved their maximum Holocene extent and at a time when insolation is still decreasing.