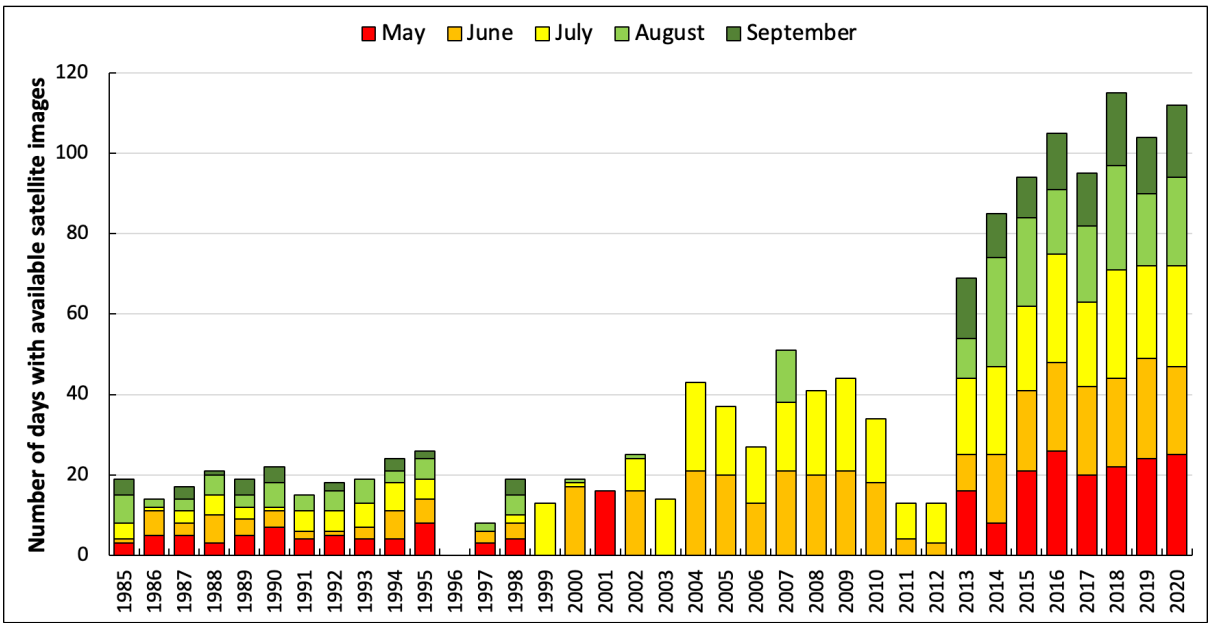

Fig. S2. Number of days for which satellite data from Landsat-5 TM (1985-1998), Landsat-7 ETM+ (1999-2013) and Landsat-8 OLI (2013-2020) is available for months May – September during 1985 to 2020. Cloud-covered images were included if they allowed identification of drainage of individual lakes in cloud-free parts within the study area.

Despite temporal gaps between for this study suitable satellite images in some years, lake drainage could still be classified for a number of lakes if sufficient satellite images were available at the end of the previous melt season or at the beginning of the following melt season. In years where no satellite data was available for the beginning and/or end of the melt season, lake drainage behavior could still be determined if the formation or cessation of lakes occurred in the middle of the melt season. Generally, months June-July were observed to show main lake activity, e.g. filling or drainage of a lake, opening of ice-cover of buried lakes starting in June (Fig. 7). If a lake did not drain, freeze over began during August.

Years 1986, 1996, 2001 and 2003 were excluded as they did not allow clear classification of lake drainage behavior for a large number of lakes, due to limited availability of satellite data in the same year as well as the preceding and following years. Year 1996 was excluded because no suitable satellite images were available for May-September.