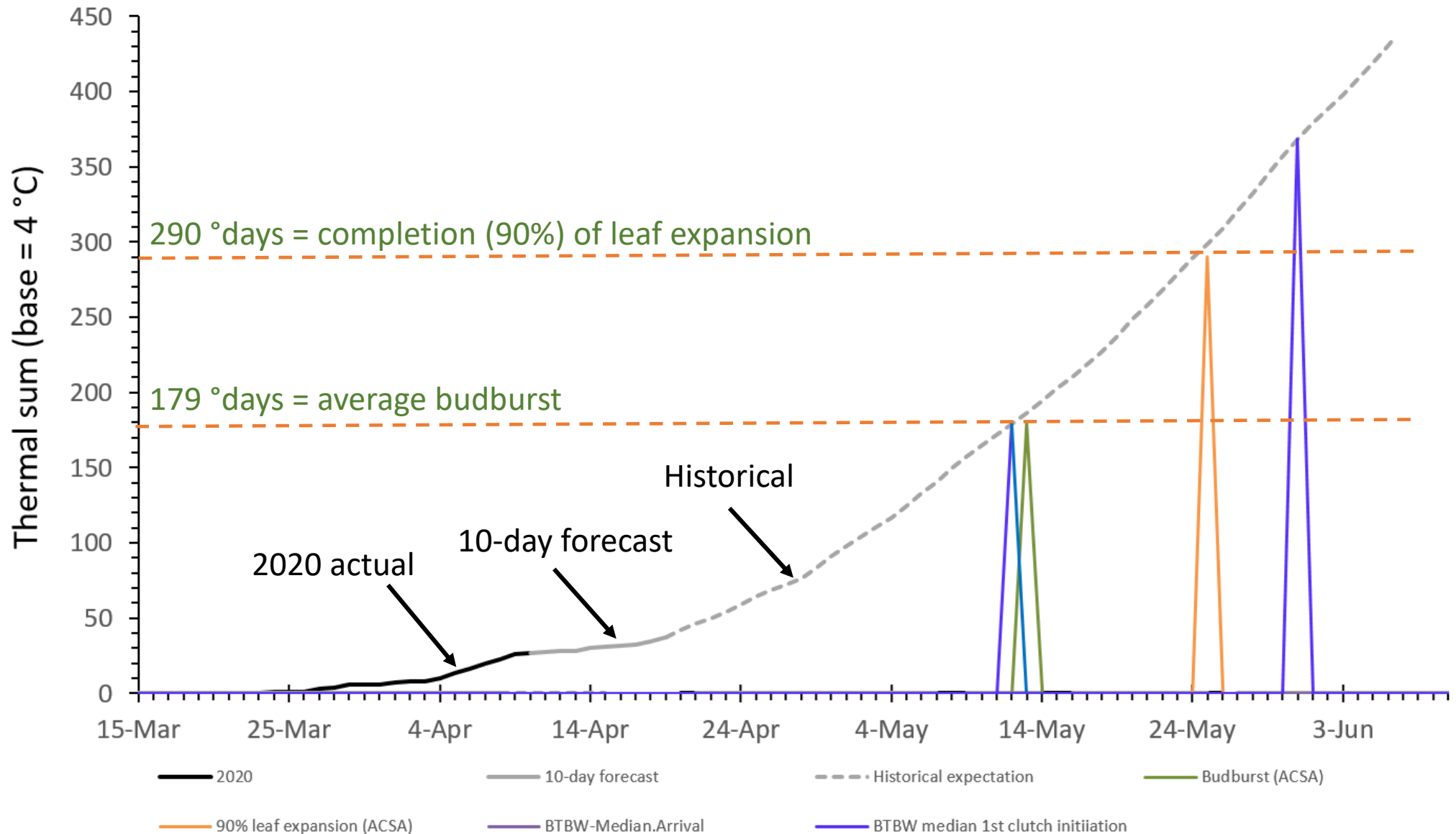


- Budburst defines the beginning of annual activity in the green food web.
- The date of budburst in sugar maple and beech varies by up to four weeks among years (4 May to 2 June since 1957).
- The expected date has advanced by 7 days in 60 years.
- Best prediction model as of 2019: budburst at $179 \text{ }^\circ\text{days} > 4 \text{ }^\circ\text{C}$ after 21 March (modified from Lany et al. 2016).

Estimated leaf-out phenology for Main Bird Plot 2020 based on thermal sums.

As of 11 April 2020, predicted dates for budburst and 90% completion of leaf expansion are:
13 May and 25 May.

Predicted median dates of Arrival and 1st clutch initiation by BTBW are:
12 May and 31 May.



Real-time temperature records from USDA National Water & Climate Center (site 2069).

Phenological models adapted from Lany et al. 2016 using long term data of USDA Forest Service.