

Fairbanks Phenology

~ Tapping Into Spring ~

- Community-based science
- Long-term observational record-sharing
- Carrying forward the work that came before

ACCAP Green-up Webinar
 April 30 2025

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Community-Based Science



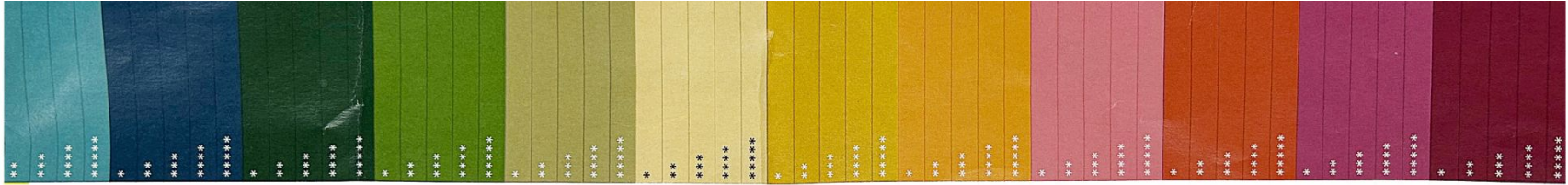
April 24, 2025: *“We just got our first sap today off Willow Run, above Snowhook Trail! 800’ elevation on a SE aspect (we tapped it over the weekend)”*
—Sean Marble and Sandra Walser

April 7, 2025 (excerpt from the *Tapping Into Spring* home tapping kit): “As a scientist, one of the most important things you can do is carefully observe and document. You are one of 300 citizen scientists tapping birch trees in the same way from Nenana to Fairbanks to Salcha; and Homer to Talkeetna to Healy.






April 24, 2021: *Neighbors help each other tap and record their data on Chena Hot Spring Road near the Steese Highway.*

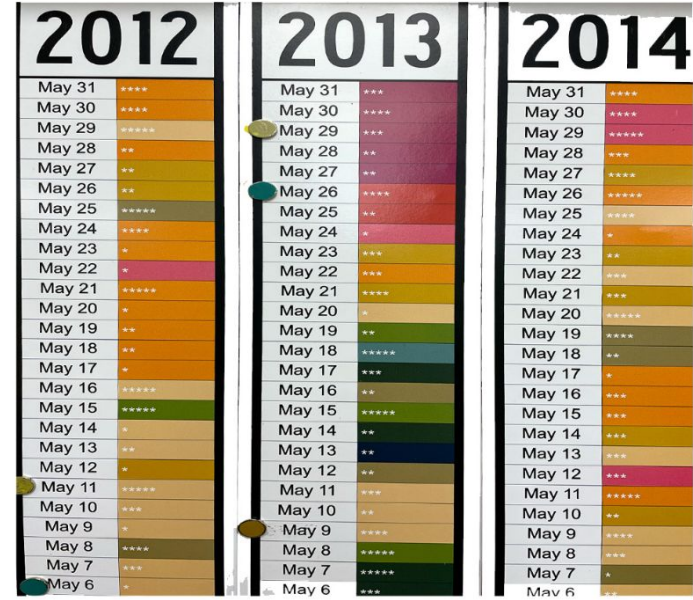
Long-Term Observational Record-Sharing



Color and dots represent Daily Thermo Gain (0-58) based on Daily Maximum Temperature (F)

Annual Phenonology Events

-  Pollen maximum
-  Green-up
-  First day of sap flow



Carrying forward the work that came before

OneTree Alaska is one of many citizen science-oriented projects geared toward understanding how ongoing climate change is affecting the resilience of organisms in the boreal forest ecosystem.

Our efforts build on Rick Thoman and Ted Fathauer's Green-Up Index which forecasts when the hillsides around Fairbanks will transform, seemingly overnight, from the dull grey of winter dormancy to the tender yellow-green of spring leaf-out.

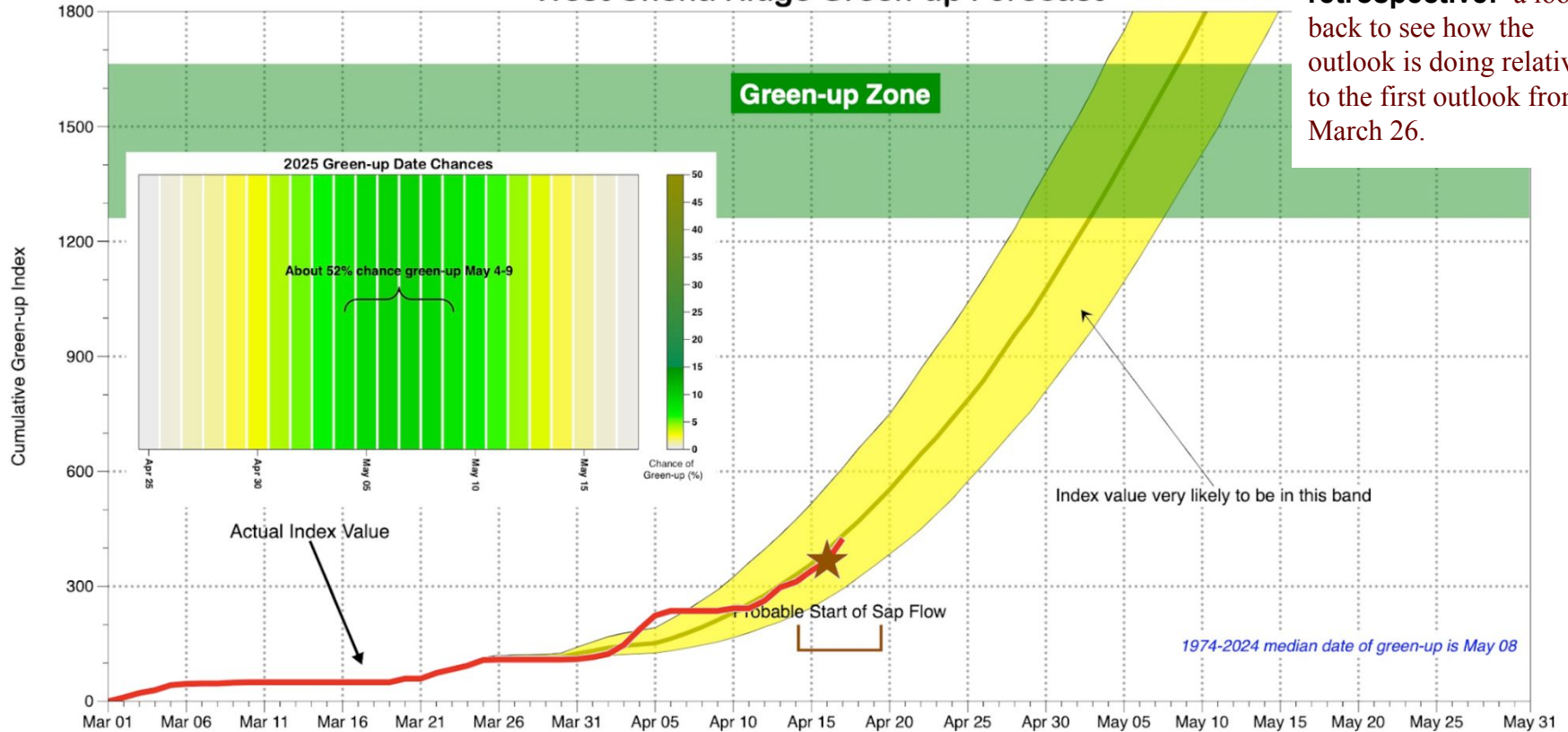
We are particularly interested in how the lengthening growing season may be affecting the timing of the sap and pollen seasons. We are training tappers to use the Accumulated Heat Sum first approach developed by Thoman and Fathauer to better understand not only how sap changes throughout the sap season but when to expect their birch pollen allergies to erupt. Predicting the onset of pollen season was a major motivator for both Ted Fathauer and palynologist, Jim Anderson's work in this area.

In 2017, OneTree Alaska spearheaded the development of the Fairbanks Birch Sap Collaborative as a crowdsourced citizen science "boots on the ground" effort to help collect the massive amounts of data needed to say anything statistically meaningful about these matters.

We hope you'll join our efforts by collecting Daily Sap Data and sharing it with us!

2025 Fairbanks, Alaska West Chena Ridge Green-up Forecast

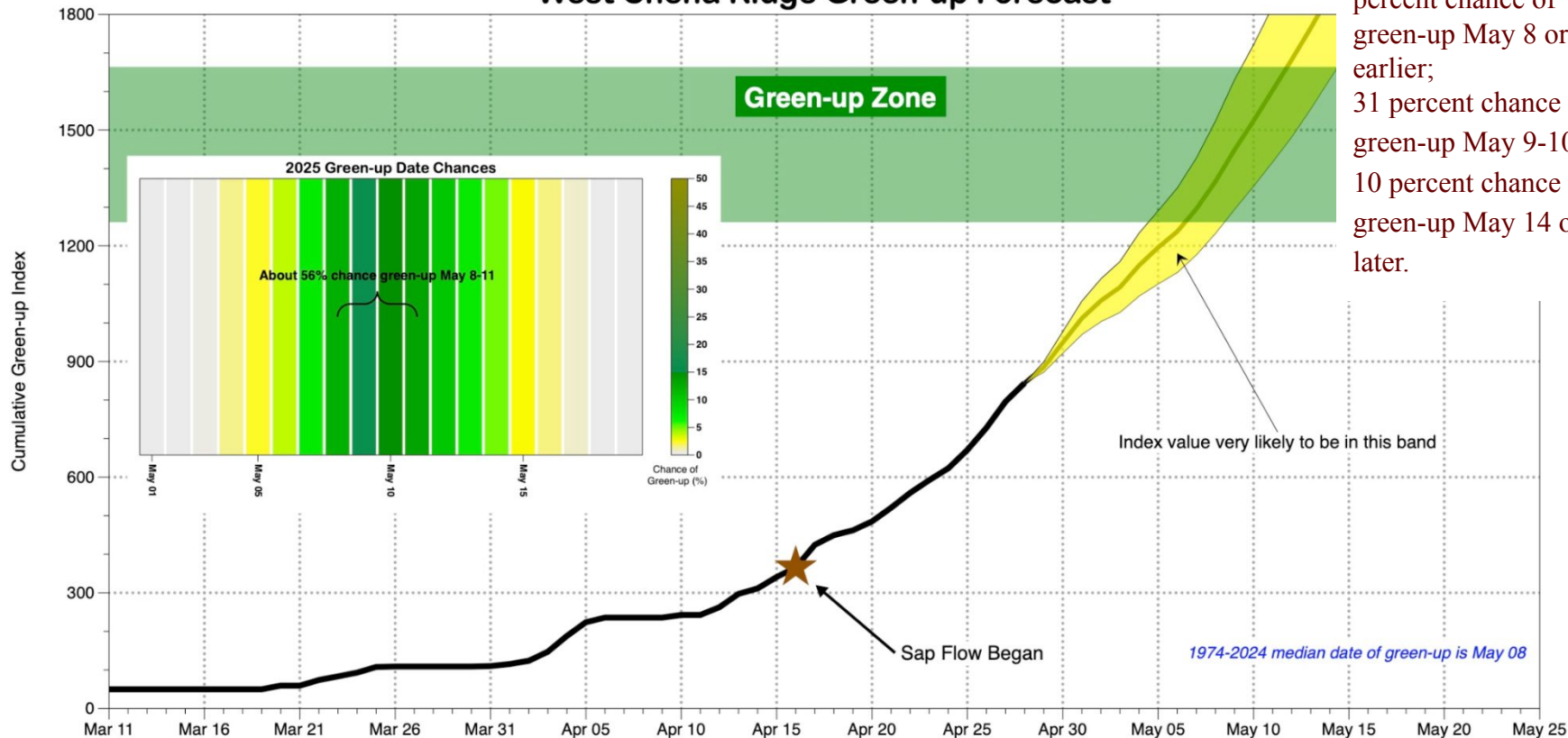
April 18 to March 26
retrospective: a look
back to see how the
outlook is doing relative
to the first outlook from
March 26.



Understanding this chart: the solid black line shows the observed green-up index.
The yellow band is the forecast spread of the index based on National Weather Service daily high temperature forecasts for the next 11 days and CPC outlook adjusted climatology thereafter.
The actual index value will very likely be inside the yellow band and the gray line is the median forecast. Green-up is very likely to occur when the index is in the green-up zone.

2025 Fairbanks, Alaska West Chena Ridge Green-up Forecast

April 29, 2025: 27
percent chance of
green-up May 8 or
earlier;
31 percent chance of
green-up May 9-10;
10 percent chance of
green-up May 14 or
later.



Understanding this chart: the solid black line shows the observed green-up index.

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The actual index value will very likely be inside the yellow band and the gray line is the median forecast. Green-up is very likely to occur when the index is in the green-up zone.

Rick's 2025 Green-up Outlooks can be found here: [2025 GU Index Daily Outlooks with Rick Thoman's comments](#)

For a detailed explanation of how we calculate Accumulated Heat Sum calculation, please refer to [BTS 1](#)

Our interactive “scratchpad” details how Rick, Susan, and I coordinate our efforts: [2025 Fairbanks Phenology: Tapping Into Spring Scratchpad to share with Fairbanks Birch Sap Cooperative.xlsx](#)



Visit the OneTree Alaska STEAM Studio (Lola Tilly Commons Suite 230, 1850 Tanana Loop, (907)474-5907) to meet the sap crew — Pearson Brodie, Shaun Johnson, and Jesi Lobato — and learn more about tapping. Contact us to connect with tappers in your area. Thank you.