The Changing Timing of Nature

Six cases in bloom stages, desert greening and insect emergence



Tidal Basin blossoms at sunrise, March 23, 2023. Historical cover photograph, separate from the three annual stage records. Credit: National Park Service

Historical evidence. Better questions. Useful records.

The date matters, but so does the question. First flower, population peak, visible greening and adult insect emergence are different observations. Three comparable cherry seasons and three other biological events show how a useful seasonal Dattle preserves both timing and the meaning of the measurement.

Prepared November 11, 2026 | A collection by Dattle

What the records reveal

SCOPE AND METHOD

The cherry records use all six NPS stage dates for the Tidal Basin Yoshino population in 2015, 2024 and 2026. NPS defines the recorded stages at a 70% threshold. Elapsed intervals are calculated from those dates; month-and-day comparisons avoid implying a long-term trend. Other cases use a dated NASA satellite observation or retrospective institutional reports of insect emergence. Their metrics are not combined into one ranking. Approximate map points identify example regions, not event footprints or species ranges. Species photographs are labeled illustrative when their capture date is unknown. Sources were checked November 11, 2026.

A COMPARISON WORTH MAKING

The three cherry seasons took 23, 15 and 15 elapsed days from green buds to peak. Yet the 2024 and 2026 peak dates were nine calendar days apart. That is the value of preserving stages. For cicadas and superblooms, use appropriate observation definitions before attempting any comparison with the cherry record.

IMAGES AND UNCERTAINTY

Photographs and satellite views are historical agency imagery. Charts are drawn from cited observations or estimates, with units and dates preserved. A picture shows a place and moment; it does not prove an entire event boundary, impact or cause. This is a historical reference, not a live warning service.

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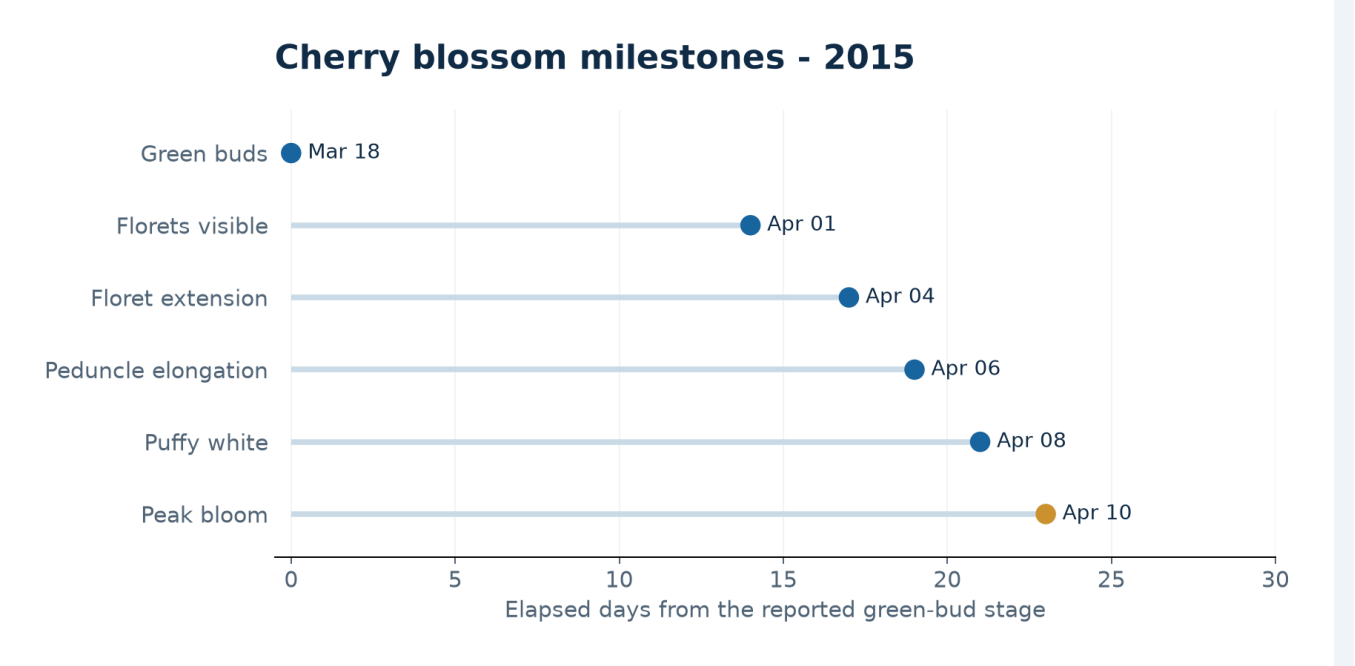
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Washington, DC: A Later Cherry Season

2015-04-10 | Tidal Basin, Washington, DC



Observed stage dates from the NPS table. Dates represent the 70% population threshold, not the first individual flower. Graphic by Dattle. Credit: Dattle graphic from the cited source data.

Species
Yoshino cherry

Green buds
2015-03-18

Peak bloom
2015-04-10

Green buds to peak
23 elapsed days

Threshold
70% of monitored buds/blossoms

WHAT HAPPENED

The NPS stage record places green buds on March 18 and peak bloom on April 10. The intermediate stages make this more useful than a single blossom photograph: they show when development advanced and where the largest gaps between reported milestones fell.

WHAT THE DATA REVEALS

The 23-day interval from green buds to peak bloom is calculated from the two published dates. Repeated observations using one definition let the next season be compared against a documented sequence.

READ WITH CARE

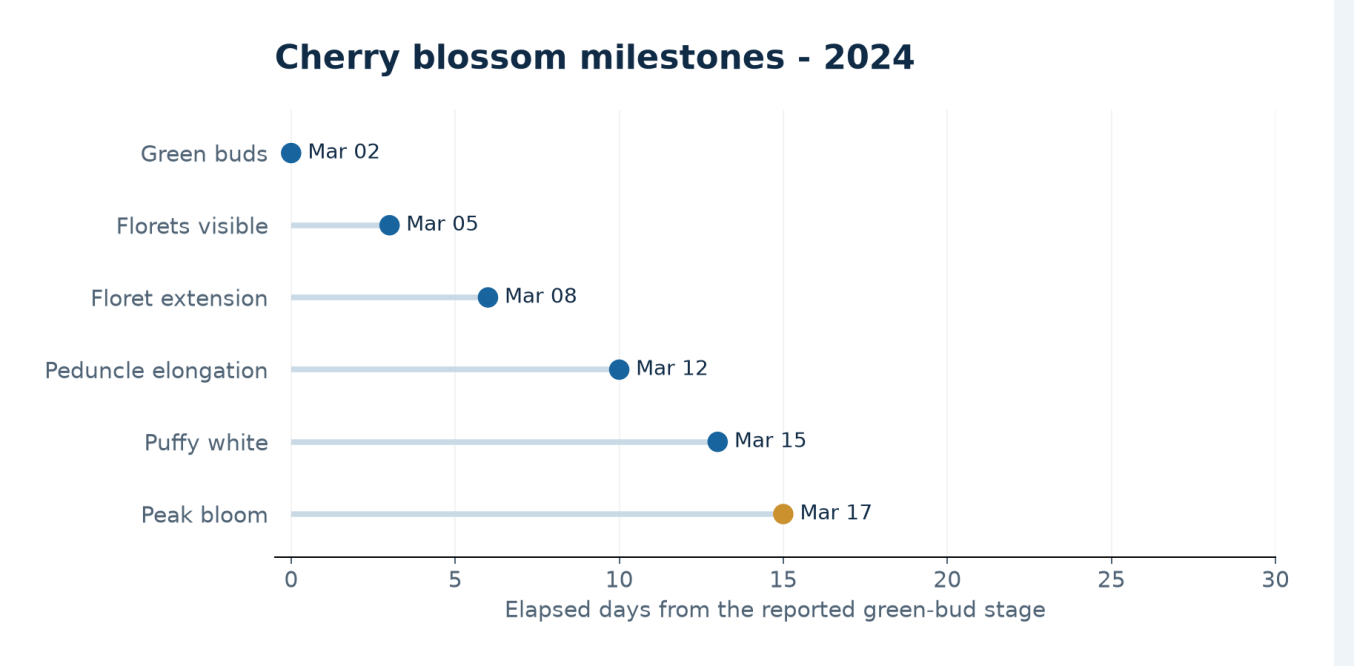
These dates describe the monitored Tidal Basin Yoshino population. They are not the first bloom on every tree, and this one season does not establish a long-term trend.

Source 1 >

Visual / data >

Washington, DC: An Earlier Cherry Peak

2024-03-17 | Tidal Basin, Washington, DC



Observed stage dates from the NPS table. Dates represent the 70% population threshold, not the first individual flower. Graphic by Dattle. Credit: Dattle graphic from the cited source data.

Species
Yoshino cherry

Green buds
2024-03-02

Peak bloom
2024-03-17

Green buds to peak
15 elapsed days

Threshold
70% of monitored buds/blossoms

WHAT HAPPENED

NPS records green buds on March 2 and peak bloom on March 17. All six stages are available, making this a particularly clear comparison with the later 2015 season. The peak date is 24 calendar days earlier on a month-and-day scale.

WHAT THE DATA REVEALS

Record the definition, site and species before comparing dates. A field named simply "bloom date" could otherwise mix first flower, peak bloom and the day someone happened to visit.

READ WITH CARE

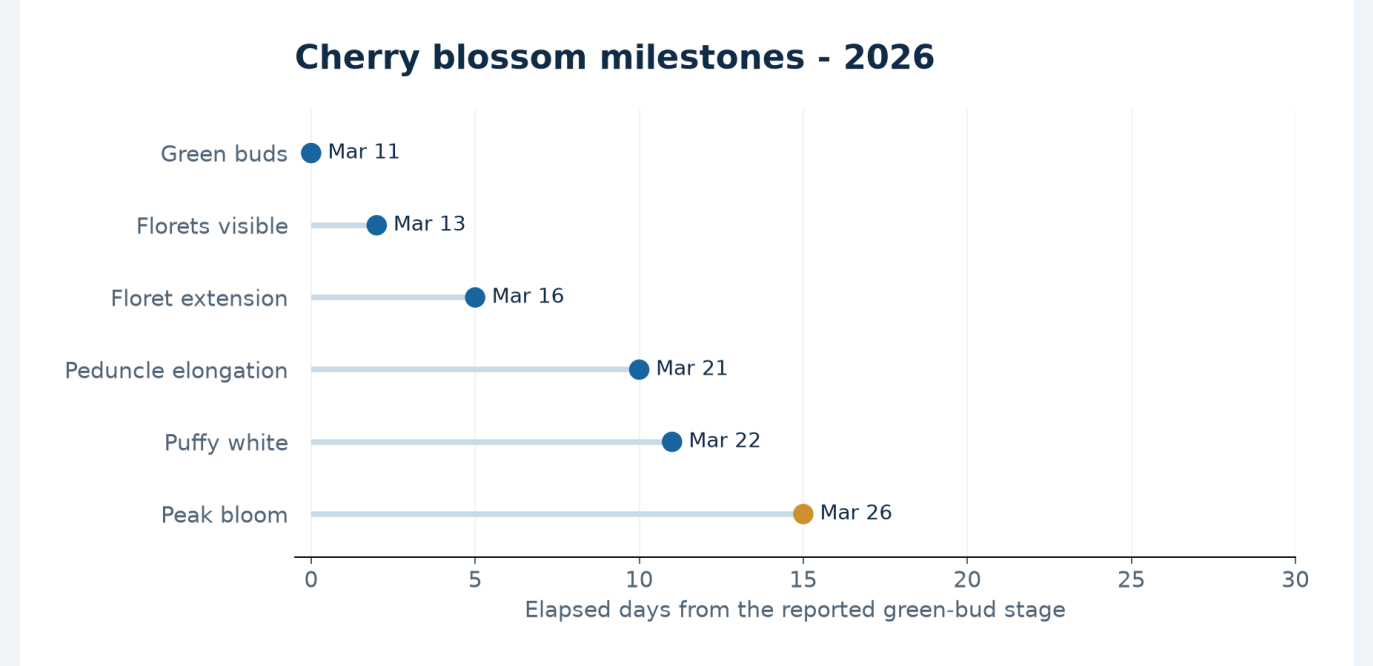
The green-bud-to-peak interval is 15 elapsed days. Three selected years illustrate variation; they are too few and too selectively chosen for a climate-trend estimate.

Source 1 >

Visual / data >

Washington, DC: The Value of Every Stage

2026-03-26 | Tidal Basin, Washington, DC



Observed stage dates from the NPS table. Dates represent the 70% population threshold, not the first individual flower. Graphic by Dattle. Credit: Dattle graphic from the cited source data.

Species
Yoshino cherry

Green buds
2026-03-11

Peak bloom
2026-03-26

Green buds to peak
15 elapsed days

Threshold
70% of monitored buds/blossoms

WHAT HAPPENED

The NPS record places green buds on March 11 and peak bloom on March 26, with puffy white on March 22. Peak occurred nine calendar days after the 2024 peak, while the overall green-bud-to-peak interval was the same 15 days.

WHAT THE DATA REVEALS

Two seasons can take the same total time yet reach individual milestones on different dates. Keep intermediate stages and observation effort so a comparison can ask more than "was spring early?"

READ WITH CARE

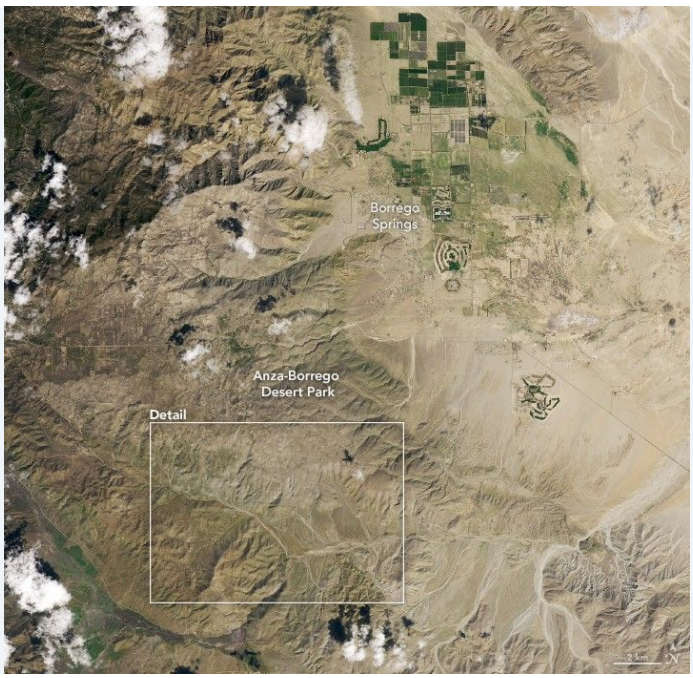
Peak means the published population threshold, not a prediction for another location. Daily weather, tree differences and observation practices still matter; this record cannot assign a single cause to the timing.

Source 1 >

Visual / data >

Anza-Borrego: A Bloom Seen From Space

2019-03-13 | Anza-Borrego Desert State Park region, California



Landsat 8 OLI close-up of the Anza-Borrego region on March 13, 2019. Flowers appear as pale patches; this is not a flower-count map. Credit: NASA Earth Observatory / Lauren Dauphin, using USGS Landsat data

Observation date
March 13, 2019

Platform
Landsat 8

Sensor
Operational Land Imager

Observation type
Satellite landscape image

WHAT HAPPENED

NASA published Landsat observations of the 2019 bloom and greening around Anza-Borrego after a wet Southern California winter. The close-up image shows pale patches of wildflowers within the desert landscape. This is a dated regional observation rather than a standardized count of flowers or a measurement of the first bloom.

WHAT THE DATA REVEALS

Combine a repeat satellite viewpoint with ground photographs, species identification and local observation dates. Landscape greenness can guide a question, but a field record is needed to distinguish flowers, leaves and the species responsible.

READ WITH CARE

No bloom area, species abundance or exact onset is inferred from these pixels. The source gives inconsistent November dates for its earlier comparison image; this case therefore uses only the unambiguous March 13 observation.

Source 1 >

Visual / data >

Brood X: A Long Cycle, A Local Emergence

2021 (spring emergence) | Eastern United States; Maryland as a documented example



Periodical cicada identification photograph. Undated illustrative image; not a documented 2021 observation. Credit: NPS / Nortrup

Brood	Nominal cycle
X	**17 years**

Observed emergence year	Evidence
2021	**Retrospective institutional accounts**

WHAT HAPPENED

The Smithsonian documents Brood X emerging in the eastern United States in 2021, and University of Maryland Extension confirms the Maryland emergence. A Smithsonian webinar with live cicadas aired on May 26. That establishes a dated example of adults being present, not a common first-emergence date across the brood's range.

WHAT THE DATA REVEALS

Track first observed adult, first chorus, last observation and repeat visit dates at a fixed site. A known multi-year cycle provides context; local weather and the observation schedule determine what the field notes can actually establish.

READ WITH CARE

The NPS FAQ predicted May arrival from temperature conditions. That forecast is not used as an observed start date. The accompanying NPS identification photograph is undated and is not presented as a photograph of the 2021 event.

Source 1 > **Source 2 >** **Source 3 >** **Visual / data >**

2024 Cicadas: Two Broods, Different Places

2024 (spring emergence) | Midwestern and southeastern United States



Periodical cicada identification photograph. Undated illustrative image; not a mapped or dated 2024 observation. Credit: NPS / Nortrup

Broods	Nominal cycles
XIII and XIX	**17 years and 13 years**
Shared calendar year	Joint cycle length
2024	**221 years**

WHAT HAPPENED

NPS describes the spring 2024 emergence of Brood XIII and Brood XIX across the Midwest and Southeast. Their 17-year and 13-year cycles aligned in the same calendar year. This is a regional biological event with different local timings and distributions, not evidence that both broods emerged together at every site.

WHAT THE DATA REVEALS

Keep brood identification and location attached to every observation. A map of verified records can separate the species or broods observed from an anticipated range and reveal where further observation would be useful.

READ WITH CARE

The 221-year alignment is a calculation from the two nominal cycles, not a forecast of local abundance. No total population or site-specific first date is assigned here. The NPS photograph illustrates identification and has no event date.

Source 1 > **Visual / data >**

From examples to observations

A USEFUL RECORD KEEPS ITS EVIDENCE

Keep the time, place, measurement method, unit, source and uncertainty with every observation. Separate what you saw from an estimate or interpretation. Repeat observations consistently, and retain the original evidence when updating a record.

SUGGESTED DATTLE FIELDS

- Species or brood and identification confidence
- Fixed observation site and coordinates
- Observation date and local time zone
- Phenophase with a consistent definition
- Presence, absence or not observed
- Count or proportion and sampling method
- Survey duration and repeat visits
- Weather context from an identified source
- Photo timestamp, viewpoint and credit
- Observed date versus forecast date
- Source URL and any uncertainty

AI AS AN ACCELERATOR

Use this prompt to draft a collection structure, then review it. AI can organize the questions and fields; it cannot supply missing observations or replace source verification.

> Create a Dattle for seasonal nature observations with species or brood, location, observation time, phenophase, presence or absence, count or proportion, survey effort, weather source, photograph and source links. Separate first observation from biological onset, and forecasts from confirmed observations. Keep unknown dates and counts empty rather than inventing them.

Explore Dattle at dattle.com. Availability, features and plan limits are described on the website.

Sources and image credits

Primary references checked November 11, 2026. Records and estimates can be revised. Every case page links to its evidence; full addresses are retained here for reuse.

01. NPS Bloom Watch: annual stage dates and definitions
https://home.nps.gov/subjects/cherryblossom/bloom-watch.htm

02. NASA Earth Observatory: Wildflower Super Bloom Returns to California
https://science.nasa.gov/earth/earth-observatory/wildflower-super-bloom-returns-to-california-144686/

03. Visual / source data for Anza-Borrego: A Bloom Seen From Space
https://assets.science.nasa.gov/dynamicimage/assets/science/esd/eo/images/imagerecords/144000/144686/anzaborrengo_oli_201972_crop2.jpg

04. Smithsonian: Periodical Cicadas and the 2021 Brood X emergence
https://naturalhistory.si.edu/education/teaching-resources/life-science/periodical-cicadas

05. University of Maryland Extension: Cicadas in Maryland
https://www.extension.umd.edu/resource/cicadas-maryland

06. NPS: Brood X FAQ and identification photograph
https://www.nps.gov/articles/000/cicadas-brood-x.htm

07. Visual / source data for Brood X: A Long Cycle, A Local Emergence
https://www.nps.gov/articles/000/images/MicrosoftTeams-image_7.png?maxwidth=650&autorotate=false

08. NPS: Emerging Cicadas (retrospective update, December 2024)
https://www.nps.gov/articles/000/idkt_cicadas.htm

09. Visual / source data for 2024 Cicadas: Two Broods, Different Places
https://www.nps.gov/articles/000/images/cicada-nps-Nortrup.jpg?maxwidth=1300&autorotate=false

10. Cover visual - National Park Service
https://home.nps.gov/subjects/cherryblossom/images/Cherry-Blossom-peak-bloom-NPS-Photo-NSA-March23-2023-sunrise-TJ-TB-pink-clusters-edit.JPG?maxwidth=1300&autorotate=false