

17 Adar 5785
March 17, 2025

Heatwave Analysis: March 12-18, 2025

An extended and abnormal heat event is impacting our region and is expected to conclude tomorrow. Throughout this event, temperatures exceeding 30°C (86°F) have been recorded in lowland and plain areas, with values above 25°C (77°F) in mountainous regions. While absolute temperature records for the first half of March were generally not broken (except in Eilat and Kfar Blum), the prolonged event of hot days is exceptional and unprecedented in parts of the country.

Event Progression and Temperatures

Significant warming commenced on the 12th of the month. Since then, temperatures have remained substantially above the seasonal average across all regions (by approximately 7 to 11°C).

On some days (particularly the 14th and 15th), the influence of the sea breeze moderated temperatures along the Coastal Plain, although they remained significantly above average. On the 16th, cool, moist marine airflow beneath the warm air mass created an inversion layer, resulting in coastal fog persisting from morning until afternoon hours.

During the hot episode, temperatures surpassed 30°C in the Negev, eastern valleys, and the Shfela region, reaching close to 35°C on some days (and even higher in the Jordan Valley and Arava). Across much of the Coastal Plain, temperatures exceeded 30°C on most days, while the Central Highlands recorded 26 to 29°C (see Table 1).

Event Anomalies

This prolonged episode of hot days is highly anomalous for this time of year (most hot days occur in the first half of March). In parts of the country, the duration is unprecedented, while in other areas, only one or two similar occurrences have been documented historically. In the northern valleys, the Jordan Valley, and the Eilat area, no such prolonged episode of high temperatures has been recorded in early March since measurements began. In other parts of the country, a similar or more significant spell occurred during this period in 2010, and a comparable spell occurred in 2004 (see Table 2). Along the Coastal Plain in 2010, an eight-day hot spell occurred, with temperatures reaching 35-37°C, although it included days with values below 25°C.

Regarding absolute temperature values, records for the first half of March were generally not broken (most were set in 2010). However, in Eilat, where a temperature of 37.9°C was recorded on March 16th, this constitutes a new all-time record for the entire month of March (surpassing the previous record of 37.8°C set in 2004). In Kfar Blum, 35.2°C was recorded on the 16th, setting a new record for the first half of March (mid-month), exceeding the previous record of 34.8°C set on March 15th, 2013.

Table 1: Daily Maximum Temperatures (°C) from 12-17.03.2025 Compared to Average

Station	12.3	13.3	14.3	15.3	16.3	17.3	Multi-year Average March
En HaHoresh	28.9	31.6	29.3	26.1	28.5	31.6	20.9
Hakfar Hayarok	29.3	32.2	28.2	24.9	25.8	28.9	21.5
Tel Aviv Coast	29.4	31.4	25.0	23.0	22.4	24.2	19.9
Bet Dagan	29.4	31.7	29.9	26.9	31.6	32.8	21.3
Negba	28.3	30.8	28.1	26.2	29.2	31.7	20.8
Besor	27.8	31.8	28.5	25.8	31.1	33.7	21.8
Zefat Har Kenaan	20.9	22.3	23.3	25.3	26.1	25.2	14.9
Elon	26.9	28.4	30.4	29.1	32.3	31.7	20.0
Afula Nir HaEmek	27.3	29.3	31.8	32.6	34.3	31.7	21.6
Beit Jamal	26.7	29.9	29.5	28.7	31.7	31.9	21.0
Jerusalem Center	23.6	25.8	27.3	28.5	28.4	28.9	17.4
Rosh Zurim	20.4	22.6	24.3	25.1	25.6	25.9	15.1
Arad	24.3	26.8	28.3	29.3	29.2	30.3	19.5
Beer Sheva	27.8	31.1	30.7	29.6	33.3	33.3	22.1
Sede Boqer	25.0	28.6	28.3	28.2	30.4	31.0	20.5
Kefar Blum	29.3	30.3	32.4	34.3	35.2	32.3	23.3
Zemah	30.2	33.2	32.4	34.1	34.1	27.8	22.7
Gilgal	33.5	35.5	34.4	37.7	38.2	36.0	26.8
Sedom	31.1	31.8	31.8	33.3	33.8	32.1	26.0
Hazeva	29.8	32.0	31.7	32.2	34.1	32.8	25.2
Paran	28.3	31.3	30.6	31.3	33.0	33.5	25.5
Yotvata	30.3	34.0	32.2	32.6	34.4	35.4	25.5
Eilat	33.4	34.8	33.6	34.5	37.9	36.2	27.0

Table 2: Similar Past Sequences of Warm Days in the First Half of March

Station	Similar Past Events
Ein HaHoresh	Similar sequence in 2010
Tel Aviv Coast	More significant sequence in 2004
Bet Dagan	Similar sequences in 2010 and 2004
Negba	Similar sequence in 2010
Besor	More significant sequence in 2010
Zefat Har Kenaan	More significant sequence in 2010
Elon	Similar sequences in 2010 and 2004
Afula Nir HaEmek	No similar sequence in the past
Beit Jamal	More significant sequence in 2010, similar in 2004
Jerusalem	More significant sequence in 2010, similar in 2004
Rosh Zurim	More significant sequence in 2010, similar in 2004
Arad	More significant sequence in 2010, similar in 2004
Beer Sheva	More significant sequence in 2010, similar in 2004
Sede Boqer	More significant sequence in 2010, similar in 2004
Kefar Blum	No similar sequence in the past
Zemah	No similar sequence in the past
Gilgal	No similar sequence in the past
Sedom	No similar sequence in the past
Hazeva	More significant sequence in 2010
Paran	More significant sequence in 2010
Yotvata	More significant sequence in 2010
Eilat	No similar sequence in the past