

1 Sivan 5785
28 May 2025

Summary of the severe heatwave of 26 May 2025 and the succession of heatwave events

On 26 May 2025 a severe dry heatwave prevailed across the country. Like the previous episode on 17 May, it was short-lived, yet air temperatures exceeded 38 °C over extensive areas. This was the fourth severe heatwave within the past month; an incidence of so many such events within so brief an interval typically occurs only once in a decade.

Temperatures and synoptic conditions on 26 May 2025

Along the Coastal Plain temperatures reached 37–39 °C; in the Judean Lowlands, the northern valleys and the northern Negev they climbed to 40–42 °C; in the Jordan Valley and the Arava they attained 42–43 °C. Over the Judean Mountains, Samaria and the Lower Galilee readings were 37–39 °C, while the Upper Galilee and northern Golan Heights registered 34–36 °C. In the narrow coastal strip, no heatwave conditions developed and maxima remained 28–30 °C. The extreme heat was accompanied by very low relative humidity, and numerous wildfires broke out during the day, especially in the Jerusalem area.

Exceptionality of the recent frequency of heatwave events

During the past five weeks four discrete episodes of severe heatwave were observed in our region, on 23 April, 30 April, 17 May and 26 May. Although each spell was brief, every one produced very high temperatures, locally ~38 °C or higher and at times beyond 40 °C. A comparison with the historical record shows that such a high count of severe heatwave events within roughly a single month is remarkable. Last year (2024) a similar number of events did occur—albeit with slightly lower peak temperatures, but before that a comparable cluster appeared only about once per decade: in 2016, 2003, 1991, 1980 (five events that year), 1970, 1966 and 1952 (see Figure 1).

With respect to heat stress, conditions ranged from heavy to extreme during every severe heatwave day; however, the limited duration meant that there were not many consecutive hours of intense heat load. Even so, several events were characterised by strong gusts and abrupt wind-direction shifts as the heatwave broke down, complicating efforts to control the fires ignited during those periods.

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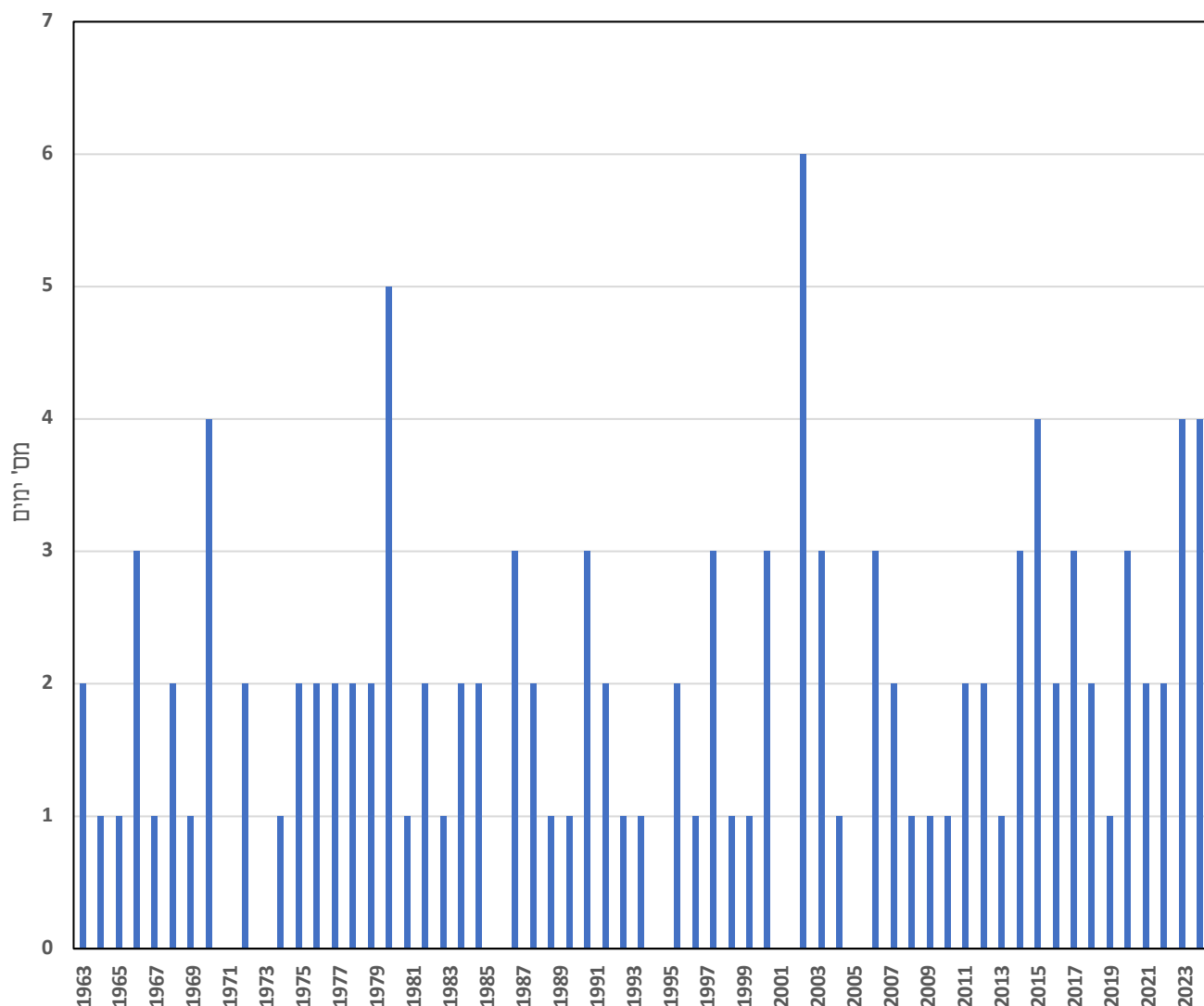


Figure 1: Number of severe heatwave events* at Bet Dagan that occurred within a single month during April–May, 1962–2025.

*A severe sharav / heatwave is defined as a sharav in which the daily maximum temperature exceeds the monthly mean by 10°C or more.

Maximum temperatures* (°C) during the four severe heatwave events, April–May 2025

| תחנה | 26.5.25 | 17.5.25 | 30.4.25 | 22-23.4.25 |
|-----------------------|-------------|-------------|---------|-------------|
| Haifa (Technion) | 37.0 | 40.2 | 33.8 | 34.3 |
| Ein Carmel | 33.1 | 40.7 | 37.6 | 35.4 |
| En HaHoresh | 34.6 | 41.1 | 39.3 | 39.3 |
| Tel Aviv Coast | 29.6 | 32.2 | 37.1 | 38.9 |
| Bet Dagan | 37.2 | 41.5 | 38.8 | 40.5 |
| Hefetz Haim | 40.1 | 42.3 | 39.4 | 41.3 |
| Qevuzat Yavne | 36.9 | 40.1 | 39.0 | 40.3 |
| Netiv HaLamed-Heh | 42.1 | 43.5 | 37.3 | 39.8 |
| Negba | 39.7 | 41.2 | 38.4 | 41.9 |
| Besor | 41.4 | 42.5 | 38.6 | 42.1 |
| Dorot | 41.1 | 42.4 | 38.8 | 41.0 |
| Zefat Har Kenaan | 34.7 | 35.8 | 28.3 | 30.2 |
| Elon | 37.5 | 41.6 | 34.3 | 35.5 |
| Tavor | 40.7 | 42.9 | 36.2 | 37.1 |
| Merom Golan Picman | 34.1 | 35.4 | 28.2 | 29.7 |
| Avne Eitan | 37.7 | 38.9 | 34.7 | 34.8 |
| Jerusalem | 37.4 | 38.1 | 31.3 | 34.8 |
| Beit Jamal | 40.8 | 41.3 | 36.0 | 38.8 |
| Newe Ya'ar | 42.1 | 43.5 | 36.3 | 36.7 |
| Afula Nir HaEmek | 41.0 | 43.3 | 37.4 | 37.0 |
| Kefar Blum | 40.1 | 41.5 | 36.4 | 36.9 |
| Zemah | 39.5 | 40.3 | 36.4 | 39.0 |
| Beer Sheva | 40.9 | 42.9 | 36.5 | 39.6 |
| Sede Boqer | 39.6 | 40.1 | 34.5 | 38.6 |
| Sede Eliyyahu | 42.2 | 44.3 | 36.3 | 38.7 |
| Gilgal | 43.1 | 44.3 | 37.5 | 40.1 |
| Sedom | 41.0 | 39.4 | 34.6 | 39.7 |
| Hazeva | 41.7 | 41.2 | 35.5 | 44.9 |
| Paran | 42.3 | 40.8 | 40.1 | 44.4 |
| Yotvata | 43.4 | 43.2 | 38.4 | 42.6 |
| Eilat | 40.4 | 45.5 | 35.6 | 40.1 |

*The peak readings at each station are highlighted, and it is evident that at the majority of sites they were recorded on 17 May 2025.

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