

Israel and Jordan endure 'hellish' record-breaking heat at night

Ajit Niranjani

Jordan and Israel have suffered through their hottest nights on record, with nocturnal temperatures in the Levant well above levels that scientists informally label "hellish".

Temperatures on Monday night were never lower than 35C (95F) in Ghor es-Safi and Aqaba in Jordan, while in the capital, Amman, they did not drop below 31.8C.

In Israel, a record-breaking night-time minimum was reported on Tuesday night of 36C in Sedom.

"It's like you're walking in a sauna," said Fayha Al-Shibli, a climate scientist at the University of Jordan, who lives in Amman.

Doctors are concerned about hot nights because they compound the damage done by heatwaves, preventing worn-out bodies from resting after the stress of a scorching day and contributing to a vast but overlooked death toll.

In many European countries, tropical nights refer to temperature minimums above 20C, while in Spain, which is more familiar with extreme heat, meteorologists also describe nights above 25C as equatorial or torrid.

In recent years, they have begun to informally refer to those above 30C as "hellish". Overnight temperatures in parts of Jordan and Israel this week remained a full 5C hotter.

Al-Shibli said 2025 had already broken records for night-time heat intensity in many parts of the country, though not for length or the number of events.

The scientist added that she and her children were suffering, but she said she was thankful for technology such as air-conditioning, which she has in her home, office and car.

"The people that can't handle it are the people without air conditioning, and those who work on the street, like cleaners and builders," she said.

► Bathers in the Dead Sea earlier this week as Israel endured the heatwave

PHOTOGRAPH: SINAN ABU MAIZER/REUTERS



Daytime temperatures also reached deadly peaks, with highs of close to 50C in Israel and the Palestinian territories. The Israel Meteorological Service said the highest temperature recorded on Wednesday was 49.7C in Kibbutz Gilgal, a settlement in the occupied West Bank, setting a new record for the Jordan Valley.

Aqaba, a port on the Red Sea, broke Jordan's national heat record with a daytime maximum of 49.6C.

Temperatures in Gaza were cooler but still soared above 40C. Unrwa, the UN agency for Palestinians, said on Thursday the heat was "making an already desperate situation far worse" by increasing dehydration. It added that limited electricity and fuel – amid bombardments and forced displacement – meant there was no relief from the heat.

Health ministries across the Middle East issued warnings to stay in the shade and drink water.

"Extreme temperatures – well above 40C during the day and above 30C by night – aren't unknown in the region, but this is certainly unusual," said Nick Lee, assistant forecast manager at MetDesk.

He added that some of the locations experiencing extreme heat were at low altitudes – such as Ghor es-Safi on the shores of the Dead Sea, which is 350m below mean sea level – and that this contributed to the high absolute values recorded. "The same way that temperature typically decreases as you go higher, when you get to these extreme low altitudes you can see much higher temperatures than at sea level," he said.

Heatwaves have grown hotter, longer and more common as fossil fuel pollution has trapped the sun's heat and baked the planet.

Al-Shibli said heatwaves can be extra dangerous if they are much hotter than temperatures people have recently experienced: "People can adapt to gradual changes, but can be caught off-guard by a sudden jump."



▲ Fire-hit villages such as Paüls in Catalonia hope grazing sheep to keep down spring growth will make them less vulnerable

◀ When fires do start, as in western Spain, left and below, local residents take great risks to try to get them under control

PHOTOGRAPHS: ENRIC ADELL; BRAIS LORENZO/EPA; LALO R VILLAR/AP



Tinderbox Spaniards urged to adapt the landscape to prevent wildfires

Sam Jones Madrid
Stephen Burgen Baix Penedès

The people of Paüls will celebrate the feast of their patron saint, Sant Roc, with a mass today, followed by a communal meal eaten at stone tables, with jota folk dances, and a profound and lingering sense of relief.

As the mayor of the small Catalan mountain town points out, last month's wildfire – which turned the night skies a hellish orange, blackened the surrounding hills and devoured 3,300 hectares of land – was a near-disaster that stirred memories of the 2009 blaze in nearby Horta de Sant Joan that killed five firefighters.

"People were afraid everything would burn and that they'd lose everything," says Enric Adell. "They were scared of getting trapped and not being able to get out of the village."

The fear of a fire like that, he adds, is unlike any other fear.

"We've been through a pandemic and a nationwide power cut and

torrential rains, but a fire on this scale was something else – as was the aftermath," says Adell.

In the hills above the village square, the charred trees are a reminder of what could have happened without the bravery of hundreds of firefighters, one of whom, Antonio Serrano, lost his life. Changing winds and sheer luck also played a part.

"When a fire hits," says the mayor, "it really leaves its mark."

This summer's fires have already left their mark across the length and breadth of Spain, from Galicia and Castilla y León in the north west to Catalonia in the north-east, from the smart suburbs outside Madrid to Extremadura in the south-west, and down to the beaches of Tarifa in Andalucía.

As well as panic and the increasingly familiar tang of smoke, this year's fires have brought with them a sense of déjà vu.

The deadly summer of 2022 laid bare Spain's huge vulnerability as the effects of the climate emergency become increasingly plain. Three years on, the country is once again on the defensive.

"The fires are one of the parts of

the impact of that climate change, which is why we have to do all we can when it comes to prevention," the country's environment minister, Sara Aagesen, told Cadena Ser radio earlier this week.

"Our country is especially vulnerable to climate change. We have resources now but, given that the scientific evidence and the general expectation point to it having an ever greater impact, we need to work to reinforce and professionalise those resources."

As politicians engage in blame games, experts are warning, once again, that bickering over the number of water-dumping planes misses the point. The current spate of fires, they add, was entirely predictable and underlines the need for a fundamental rethink of land use and management in a continent that is on the frontline of the climate emergency.

"This year's fires are basically on the same level as those we saw in 2022 and 2023," says Marc Castellnou, head of forestry for the Catalan regional fire department and a fire analyst at the University of Lleida.

"Since 2017, we've seen this

change towards more extreme fires ... It's nothing new – and it's happening because climate change is bringing higher temperatures for much longer periods."

The dynamics are not hard to discern. If you have annual heatwaves that arrive one after the other – and last longer and longer – in a country where decades of rural depopulation have left huge areas of land untended, overgrown or given over to homogeneous cultivation, then you will have massive fires that are getting harder

to fight. As one Spanish scientist noted earlier this week: "We have all the ingredients for the molotov cocktail we're seeing right now."

Cristina Montiel, a professor at Madrid's Complutense University and an expert in forest fires and land use, says that while Spain's emergency services are doing an "extraordinarily magnificent" job that is keeping far greater disasters at bay, the problem lies with society as a whole.

Despite the annual fires and the abundance of evidence, she says,



◀ In some parts of Catalonia, goats have been moved to graze in areas with a high density of undergrowth to reduce the risk of fire

PHOTOGRAPH: ALBERT GEA/REUTERS

"it turns out that we are not – and we do not want to be – aware of the danger in which we're living". If we were even a little aware, she adds, "we would take the measures and decisions to protect ourselves".

Fifty years ago, says Montiel, most forest fires were intentional. But today's forest fires are increasingly caused by accidents or negligence and are spreading so voraciously because of two factors: landscape change and the climate crisis.

It is an explosive combination. This year's heavy spring rains led to a surge in plant growth that has now been dried out by successive heatwaves, leaving all that combustible vegetation, much of it in neglected areas, ready to serve as fuel for the fires. The situation is complicated by the phenomenon of "flash droughts", which can quickly dry out even well-irrigated agricultural land, and which are likely to become more common as global heating continues.

Paüls is a case in point. Its population has dwindled over the decades and fewer and fewer people in the area work the land because of the shrinking economic rewards.

"If there were 100 people working the land before, now there are 30," says Adell. "If the same policies continue and things remain as hard as they are, then in a few years, there'll be almost no one."

All those years of abandonment had left ravines, gullies and pine forests overgrown and made them into temperature-activated timebombs. Last month's fire, says the mayor, was simply uncontrollable: "We saw that there was no way of stopping it."

If there is much truth in that idea that preparation is all – and in the old maxim that "fires are put out in winter" – the challenge now lies in undoing decades of neglect and bad planning that have seen the landscape forgotten and the appearance of housing developments in hazardous places.

There are, however, already some signs that the message is getting through. After the Horta de Sant Joan fire 16 years ago, a group of shepherds approached the Catalan fire department to ask what they could do to prevent more blazes. The result was the *Ramats de Foc* (Fire Flocks) scheme, in which shepherds coordinate with firefighters to graze flocks of sheep and goats in areas with a high density of undergrowth and therefore high risk of fire.

In areas cleared by the ruminants, firefighters have better access and, as there is less undergrowth, potential fires are also easier to bring under control.

"We don't need more helicopters or firefighters," says Marc Arcarons, who coordinates the initiative, which was launched in Girona in 2017 under the aegis of the not-for-profit Pau Costa Foundation. "We could buy 200 more helicopters and it won't solve the problem. It's all about prevention and management."

About 120 shepherds are now participating in the project, which covers 8,000 hectares in Catalonia. Similar projects are planned or under way in the Canary Islands and Andalucía.

Arcarons says that depopulation – and the decreasing use of woodlands for building material and grazing since the 1960s – has caused what were once vineyards, olive groves and wheat fields to revert to dense forest.

Fast-growing and highly inflammable pines dominated, undergrowth flourished and this, combined with the climate change and more frequent and longer periods of drought, has led to fires that are extremely difficult to control. "It's like a chimney," says Arcarons. "If you keep throwing wood on the fire eventually the chimney will catch fire and the house will burn down."

Castellnou agrees that without adapting landscapes to the realities of the climate emergency, the country is sealing its fate.

"There's no point talking about more aeroplanes," he says. "If we limit our capacity for extinguishing fires by thinking we just need enough equipment to put them out then we're creating an unsustainable, artificial situation for summer after summer of extreme weather."