

# Outlook for May to October 2026 of climatic suitability for infectious diseases in Europe

The information presented in this bulletin comes from EpiOutlook, a digital platform to anticipate risks of climate-sensitive infectious diseases in Europe. Combining seasonal climate predictions and epidemiological indicators, it provides useful information to support public health decision-making.

Each month, the platform updates its outlooks, providing a six-month forecast across a range of indicators. In this bulletin, we present some of the key findings from the May 2026 update, which includes forecasts for the period from May to October 2026.

## Outlook for Europe

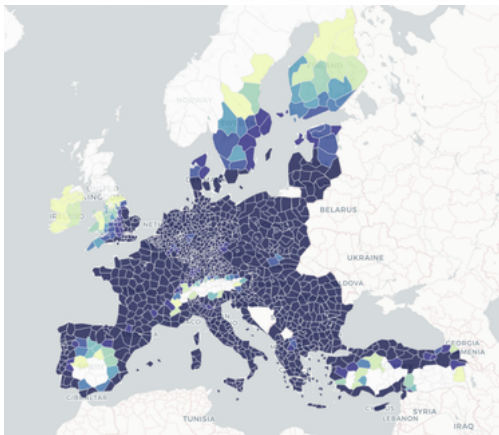
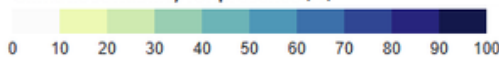
### Indicator map

Shows the probability of climatic suitability for each region in relation to the selected indicator.

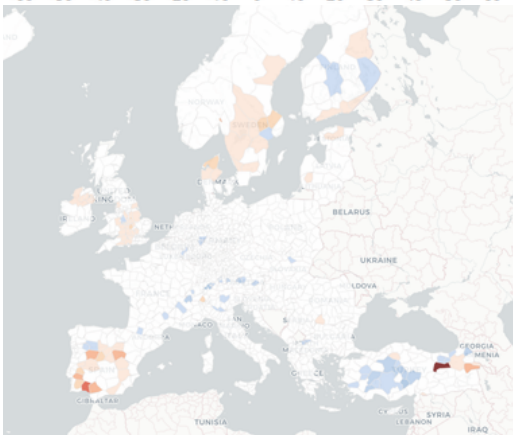
### Anomaly map

Shows how conditions for the selected time differ from the mean of the most recent decade (2015-2025). Positive values indicate a higher probability than the recent mean, while negative values indicate a lower probability.

Climatic suitability for presence (%)



Anomaly map (%)



Outlook month: **August 2026**

Indicator: **Dengue, chikungunya and Zika**  
Vector: **Aedes albopictus**

The probability for climatic suitability is high across most of Europe, except in south-central Iberia, the Alps, and the northern regions. Compared with past Augusts, forecasts for *Ae. albopictus* indicate increased suitability in transitional border areas between high- and low-suitability zones in the south-central Iberian Peninsula, as well as in southern Sweden, Denmark, and some regions of the UK and Finland.

Outlook month: **August 2026**

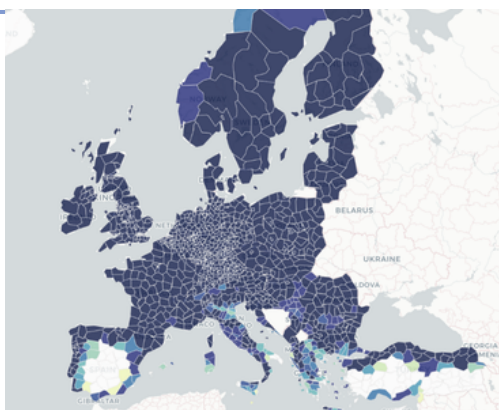
Indicator: **West Nile Virus**  
Vector: **Culex pipiens**

The probability for climatic suitability is high across most of Europe, except in central Iberia, the Alps, and the most northern regions. Compared with past Augusts, forecasts for *C. pipiens* are mixed, with increases in the Iberian Peninsula, Norway, Sweden, and southeastern Europe, and decreases in south-central Europe and Finland.

Outlook month: **August 2026**

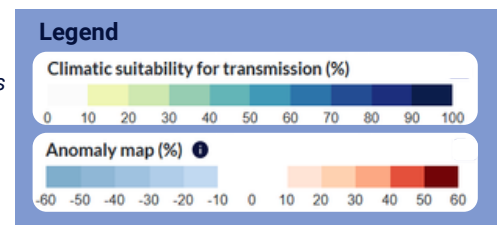
Indicator: **Tick-borne diseases**  
Vector: **Ixodes ricinus**

The probability of climatic suitability for *I. ricinus* is high across most of Europe, except in central regions of the Iberian Peninsula. Compared with past Augusts, forecasts for *Ixodes ricinus* are mixed, with increases in some regions across Europe, especially in the Iberian Peninsula, and decreases in southern Europe.

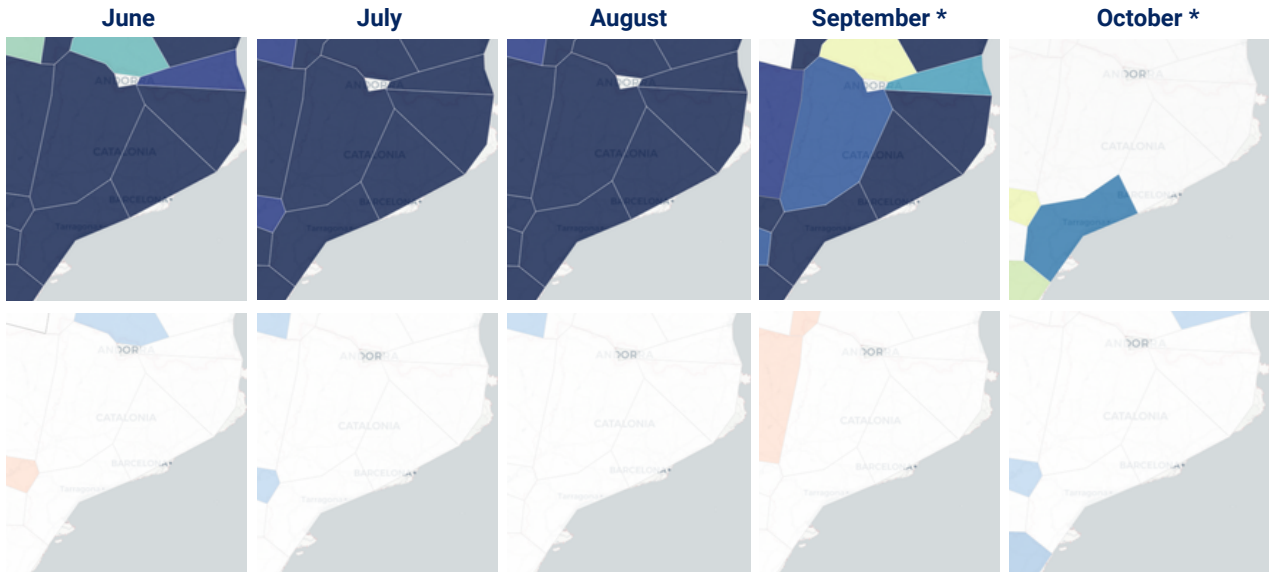


# Outlook for Catalonia

In Catalonia, located in the northeast of the Iberian Peninsula, there is presence of *Aedes albopictus* and *Culex pipiens* mosquitoes. *Aedes albopictus* are potential vectors of dengue, chikungunya, and Zika, while *Culex pipiens* can transmit the West Nile virus. Additionally, *Hyalomma lusitanicum* ticks are present only in the Barcelona region and are potential vectors of tick-borne diseases.



## *Aedes albopictus* in Catalonia

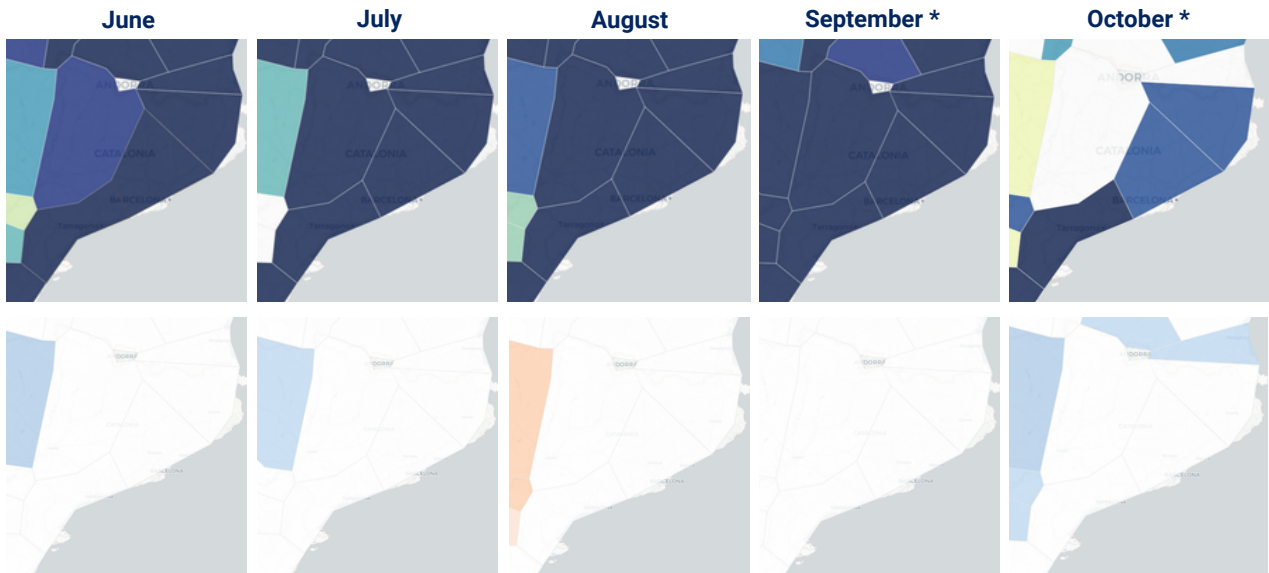


Climatic suitability for transmission:

Province	June	July	August	September *	October *
Lleida	96%	100%	100%	75%	0%
Girona	100%	100%	100%	98%	10%
Barcelona	100%	100%	100%	100%	10%
Tarragona	100%	100%	100%	100%	69%

The probability of climatic suitability for *Aedes albopictus* is very high in all four Catalan provinces from June to September. In October, suitability decreases in all provinces except Tarragona. The anomaly map shows that the forecast probability of climatic suitability for *Aedes albopictus* remains similar to the mean suitability observed over the past decade (2015–2025).

## *Culex pipiens* in Catalonia



Climatic suitability for transmission:

Province	June	July	August	September *	October *
Lleida	86%	96%	98%	100%	10%
Girona	100%	100%	100%	100%	76%
Barcelona	100%	100%	100%	100%	78%
Tarragona	100%	100%	100%	100%	100%

The probability of climatic suitability for *Culex pipiens* is very high in all four Catalan provinces from June to October, although suitability decreases in Lleida in October. The anomaly map shows that the forecast probability of climatic suitability for *Culex pipiens* remains similar to the mean suitability observed over the past decade (2015–2025).

**\* Note:** As forecast lead times increase, forecast skill may decrease, meaning that the predictions for September and October should be interpreted with more caution than those for the coming months.

# Climatic drivers for *Aedes albopictus* and *Culex pipiens* in the four Catalan provinces

## Legend

----- The **forecast** indicates the best estimate of the variable over the selected time period.

▬ The **forecast spread** is a set of possible predictions, and shows the range between the maximum and minimum values.

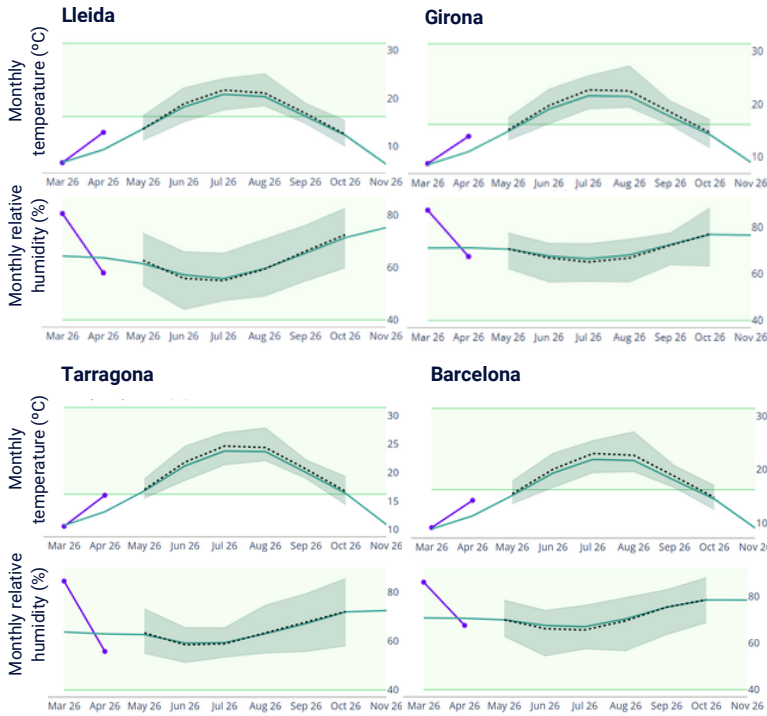
— The **climatology** represents the typical behaviour of the variable in the region, based on historical data.

— The **observations** represent the actual observed value of the variable for the corresponding month.

▭ The **threshold area** defines the range of variable values determined by the ecology of the vector or pathogen. This range represents the environmental conditions required for its survival or transmission

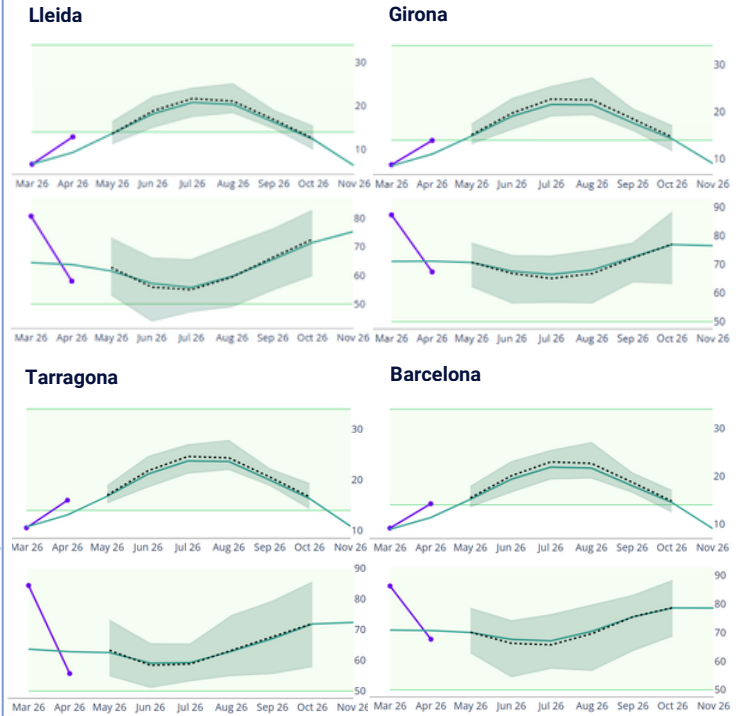
## *Aedes albopictus*

The indicator applies thresholds based on climatic suitability for *Aedes albopictus*: temperatures between 16.2°C and 31.4°C and relative humidity above 40%.



## *Culex pipiens*

The indicator applies thresholds based on climatic suitability for *Culex pipiens*: temperatures between 14°C and 34°C and relative humidity above 50%.

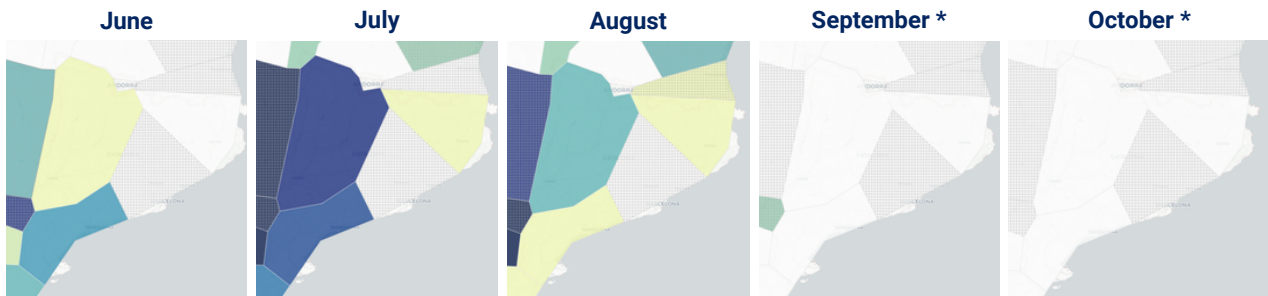


The time series show that the forecasted suitability for both *Aedes albopictus* and *Culex pipiens* is very similar to the climatology, which represents the typical behaviour of the variable in the region based on the 2015–2025 decade.

The graphs show that the decrease in climatic suitability for *Aedes albopictus* in October in Catalonia is due to lower temperatures that fall below the suitable range for the mosquito. Similarly, the decrease in climatic suitability for *Culex pipiens* in Lleida in October is due to temperatures dropping below the threshold.

## Climatic suitability for transmission *Hyalomma lusitanicum* in Catalonia

Legend Presence of vector *Hyalomma lusitanicum*:  
 Native



**Lleida:** 16%  
**Girona:** 4%  
**Barcelona:** 8%  
**Tarragona:** 59%

**Lleida:** 84%  
**Girona:** 12%  
**Barcelona:** 8%  
**Tarragona:** 76%

**Lleida:** 45%  
**Girona:** 14%  
**Barcelona:** 6%  
**Tarragona:** 16%

**Lleida:** 0%  
**Girona:** 0%  
**Barcelona:** 0%  
**Tarragona:** 4%

**Lleida:** 0%  
**Girona:** 0%  
**Barcelona:** 0%  
**Tarragona:** 0%

The probability of climatic suitability for *Hyalomma lusitanicum* is low across Catalonia during most of the forecast period. The main exceptions are Tarragona in June and July, and Lleida in July and August, where suitability is higher. However, Barcelona is the only Catalan province where *Hyalomma lusitanicum* is currently present. In Barcelona, the probability of climatic suitability remains very low throughout the five-month period. Therefore, the risk of tick-borne disease transmission is currently low.

\* **Note:** As forecast lead times increase, forecast skill may decrease, meaning that the predictions for September and October should be interpreted with more caution than those for the coming months.

# A more detailed case example: *Hyalomma lusitanicum* ticks in northern Italy in July

Outlook month: **July 2026**  
Indicator: **Tick-borne diseases**  
Vector: ***Hyalomma lusitanicum***

Most regions in Southern Europe are predicted to have high climatic suitability for *H. lusitanicum*. However, northern Italy and eastern Europe are forecast to have higher suitability compared with Julys from the most recent decade.

Focusing on northern Italy, many areas show a 40–90% probability of climatic suitability. The anomaly map shows that this is a higher-than-usual probability of suitability for *H. lusitanicum* across northern Italy compared with the mean of Julys from 2015 to 2025. In particular, the predicted probability of suitability is 20–60 percentage points higher than the mean of Julys from the past decade.

The dotted regions indicate areas where the vector is already established. In most of northern Italy, *H. lusitanicum* is already present, suggesting that the combination of vector presence and high climatic suitability may increase the risk of tick-borne disease transmission.

Looking at the region of Bologna specifically, as an example, the probability of climatic suitability in July for *H. lusitanicum* is 92%. The anomaly map shows a 38 percentage-point increase compared with past Julys. This reflects the difference in percentage suitability: in this case, if the forecast is 92% and the anomaly is +38 percentage points, the mean suitability for previous Julys (2015-2025) was 54%.

Finally, the time series suggests that the higher probability of climatic suitability in July is likely driven by both higher-than-average temperatures and lower relative humidity in Bologna. The time series show that the forecasted suitability for *H. lusitanicum* is very similar to the climatology, which represents the typical behaviour of the variable in the region, based on the alt decade data (2015-2025).

