# **Heat Outlook for June to November 2025**

**Episodes of excessive heat expected to ramp up as the Caribbean enters another unusually hot Heat Season** 

## Participating countries and territories

Antigua & Barbuda, Aruba, Bahamas, Barbados, Belize, Cayman Islands, Cuba, Curaçao, Dominica, Dominican Republic, French Guiana, Grenada, Guadeloupe, Guyana, Haïti, Jamaica, Martinique, Puerto Rico, St. Barth's, St. Kitts & Nevis, St. Lucia, St. Maarten/St. Martin, St. Vincent & the Grenadines, Suriname, Trinidad & Tobago and the US Virgin Islands







# Health: Greater frequency of heat symptoms due to excessive heat, likely peaking in September

#### **Public health:**

- strong increase in mild heat symptoms
- *notable* increase in heat illnesses, fainting episodes, hospitalisations, health services
- *likely* increase in biological risk (e.g. Aedes mosquito borne diseases, gastrointestinal disease)
- exacerbation of vulnerability in patients with chronic illness, children, pregnant women and the elderly

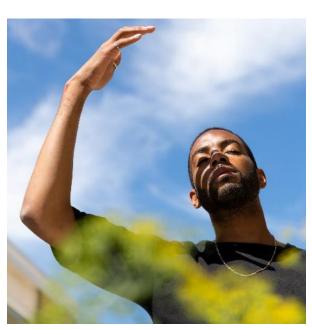
#### **Occupational health:**

- potential increase in exhaustion during intense outdoor activity
- significantly reduced labour performance and productivity if unprotected

#### Well-being:

- significantly increased sweating and water consumption
- snacking/binge eating leading to acute negative health impacts (hypertension, diabetes) and weight gain
- increased fatigue, irritability and aggression during prolonged heatwaves





# **Agriculture:**

# Expect impacts from excessive heat, likely peaking in September









#### Livestock:

- increased cooling and ventilation need to mitigate heat stress in small and large livestock
- stunted growth rate of broilers and egg production of layers
- likely reduced dairy production

#### **Crop agriculture:**

- exacerbation of any evolving drought conditions leading to increased wilting
- strongly reduced productivity between 10 AM and 3 PM

#### **Fisheries:**

- increased water temperatures potentially reducing catch of reef fish, die-off and migration of pelagic fish
- significant potential for coral reef bleaching as early as August

#### **Forestry:**

- exacerbation of any evolving drought conditions
- increased wildfire potential if fuel stock is dry

# **Tourism – Energy – Water:**

# Expect impacts from excessive heat, *likely* peaking in September

#### **Tourism:**

- **Heat adaptation** *significantly* increased demand for AC and refrigeration and associated costs in hotels
- **Diving operations** significant potential coral reef bleaching, resulting in long-term reduction in demand

#### **Energy:**

- **Production** reduced efficiency of power generation; potential increase in interruptions as a result of spikes in cooling demand
- **Demand and consumption** significantly increased cooling need in households, hotels, restaurants

#### Water:

- Quantity and quality recharge of water reservoirs along the wet season slowed down due to increased evapotranspiration; potential increase in algal blooms
- *Consumption likely* increase in households, hotels and power utilities







### **DRM – Child Care & Education**

# Expect impacts from excessive heat, *likely* peaking in September



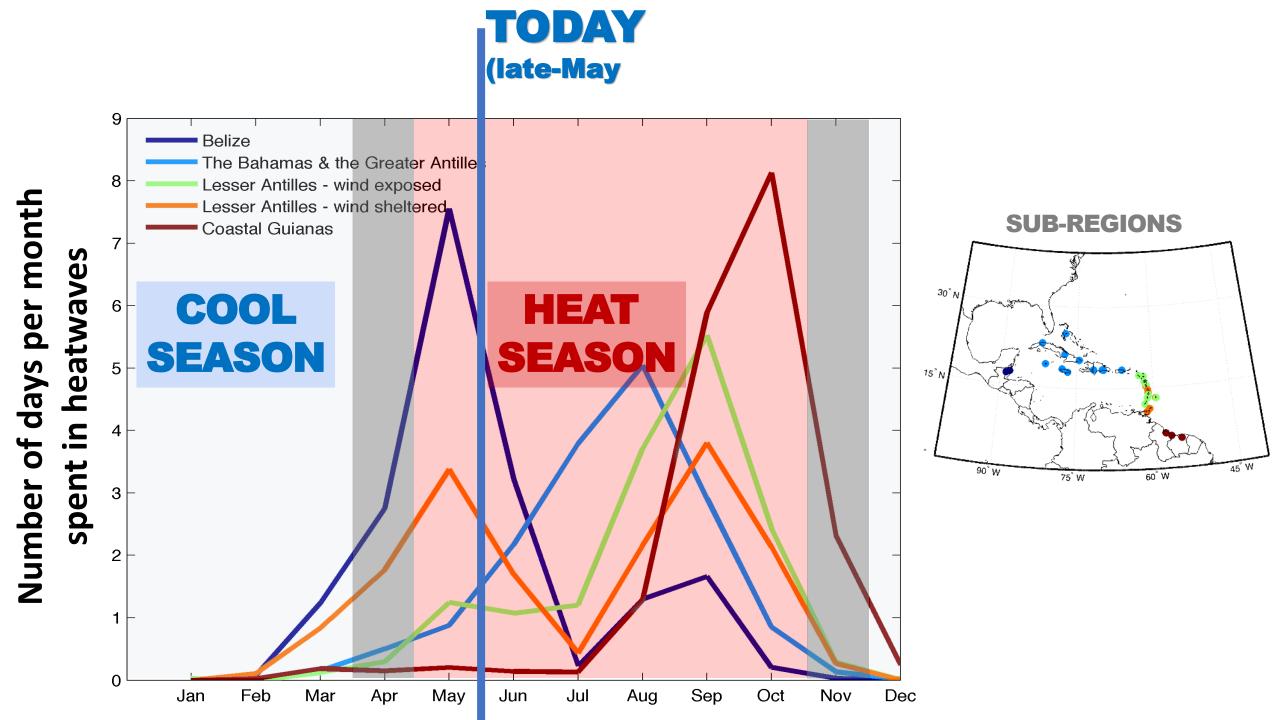
#### DRM:

- **Risk:** potentially increased mortality and increased need for cooling strategies immediately post disaster (e.g. intense heat after passage of tropical cyclone); increased wildfire potential (if fuel stock is dry)
- Operations: likely reduced productivity of warehouse staff if unprotected

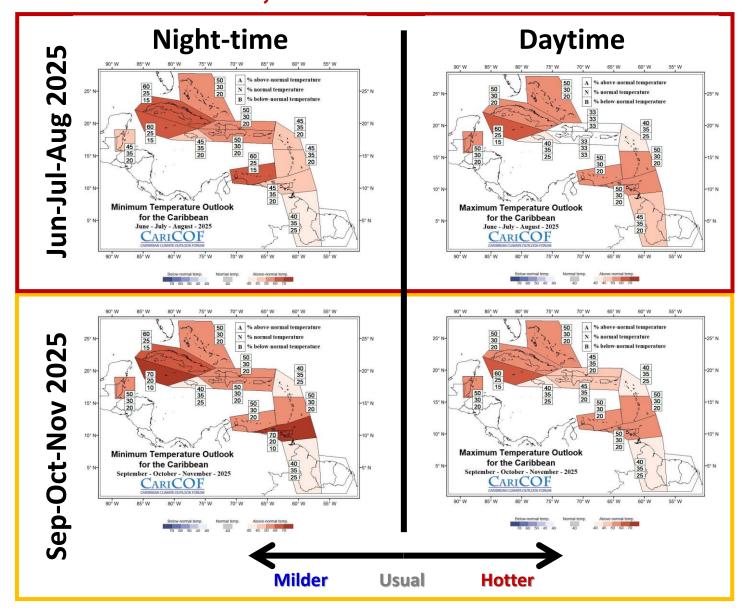


#### Child care and education:

- **Learning:** significantly reduced productivity and reduced learning ability of students during the summer semester and at the start of the 2024-2025 school year
- Child Protection: potential increase in aggression during prolonged heatwaves



## Overall, how hot will the next three to six months be?



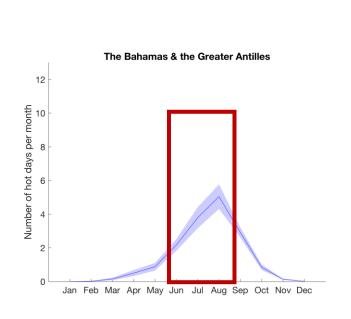
#### **FORECAST**

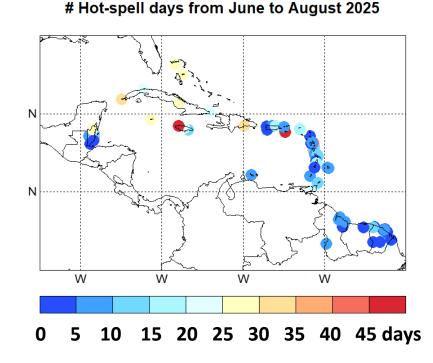
- 1. June to August, marking the summer part of the Caribbean Heat Season in the Caribbean Islands and Belize is forecast to likely be at least as warm as usual.
- Intense night-time and daytime heat is expected, especially in August and September.

#### **IMPLICATIONS**

- Increasingly frequent and possibly intense episodes of heat stress in the vulnerable population & small livestock because of high temperature and increasing humidity through September.
- Cooling need rising along these months, peaking in August and September.

# How many days spent in hot spells to expect for **June to August 2025**?

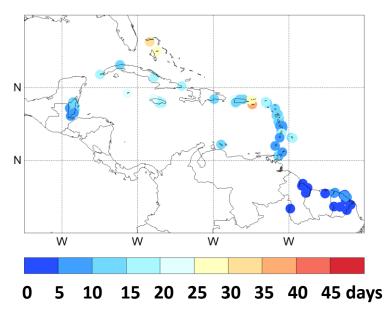




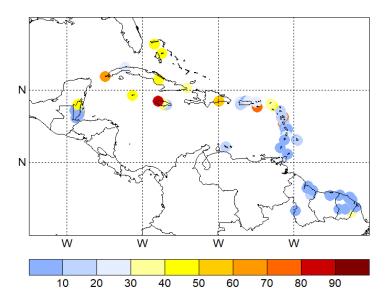
USUALLY 25-40 hot-spell days in The Bahamas, the USVI; 10-25 in the ABC Islands, Barbados, northern Belize, Dominica, the Greater Antilles, the Leeward Islands, Saint Lucia, Trinidad; no more than 15 elsewhere.

FORECAST: 25 or more hot-spell days in The Bahamas, northern Belize, Greater Antilles (except Puerto Rico), St. Croix; likely at least 30 heatwave days in northwest Jamaica and St. Croix.

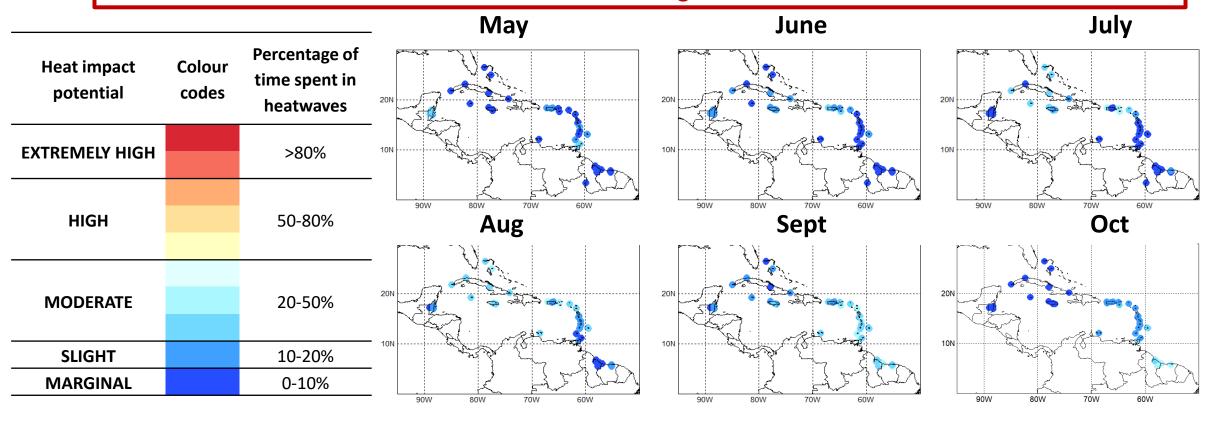
#### # Hot-spell days from Jun. to Aug. (1991-2020 avg.)



Prob. at least 30 hot-spell days from Jun. to Aug. 2025



# Historical monthly heat impact potential due to heatwaves during the heat season



May: Moderate potential in Belize; marginal to slight elsewhere.

Jun.: Slight potential in Barbados and areas from St. Martin westwards; marginal elsewhere.

Jul.: Slight to moderate potential in the Greater Antilles & Leeward Is.; marginal to slight elsewhere.

Aug.: Moderate potential in Barbados & islands westwards of Guadeloupe; marginal elsewhere.

Sep.: Moderate potential in the ABC Is., Lesser Antilles, Guianas; marginal to slight elsewhere.

Oct.: Moderate potential in Barbados, the Guianas & St. Croix; marginal westwards of Hispaniola; slight elsewhere.





# Regional climate data, information, tools, experimental and operational products are available at rcc.cimh.edu.bb

Coordination: Caribbean Institute for Meteorology & Hydrology

Contact: caricof@cimh.edu.bb

Authors: Dr. Cédric J. Van Meerbeeck – Climatologist (cmeerbeeck@cimh.edu.bb)

and Mrs. Janice Reid – ClimSA Project intern

The prototype for this product was developed with the generous support of the American People through the USAID funded BRCCC Programme in 2017.

Development Team: Dr. Cedric J. VAN MEERBEECK<sup>1</sup> (<u>cmeerbeeck@cimh.edu.bb</u>), Dr. Simon MASON<sup>2</sup>, Dr. Hannah Nissan<sup>2</sup>, Dr. Teddy ALLEN<sup>2</sup>, Ms. Wazita Scott<sup>1</sup>

<sup>1</sup>Caribbean Institute for Meteorology and Hydrology (CIMH), Barbados <sup>2</sup>International Research Institute for Climate and Society (IRI), USA