

Heat Outlook for April to September 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, Haiti, 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



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

Public health:

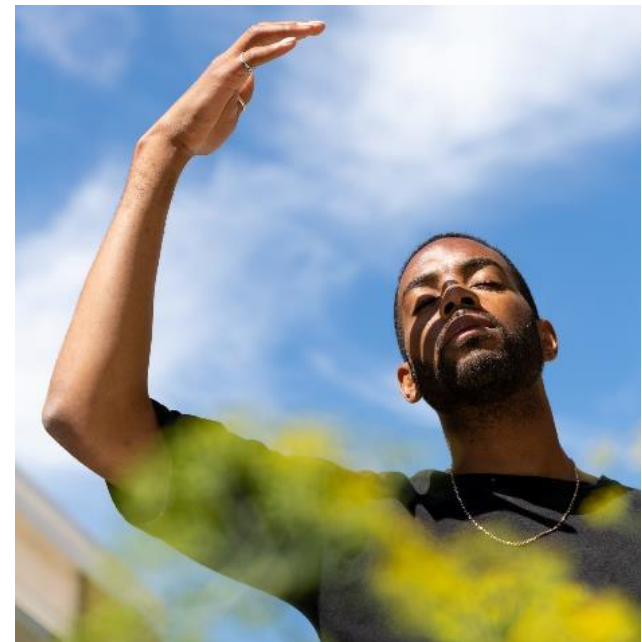
- *strong* increase in mild heat symptoms
- *notable* increase in heat illnesses, fainting episodes, hospitalisations, health services
- *likely* increase in biological risk (e.g. Aedes mosquito borne diseases, gastrointestinal disease)
- *exacerbation* of vulnerability in patients with chronic illness,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

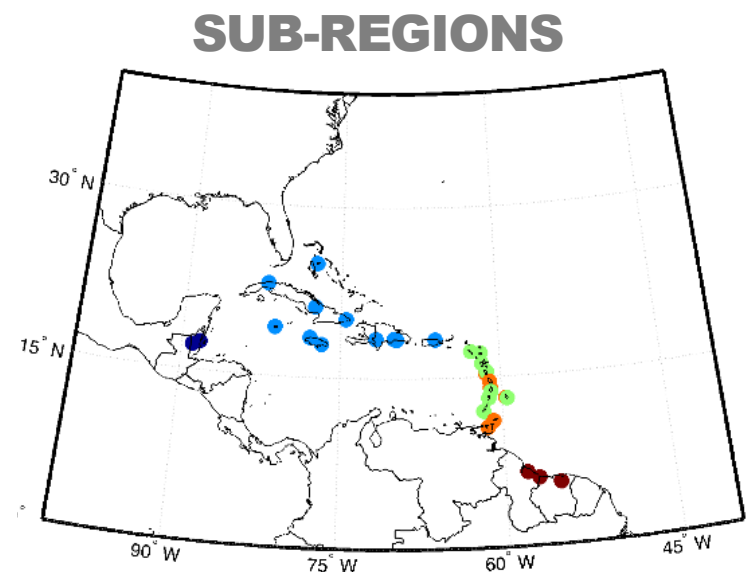
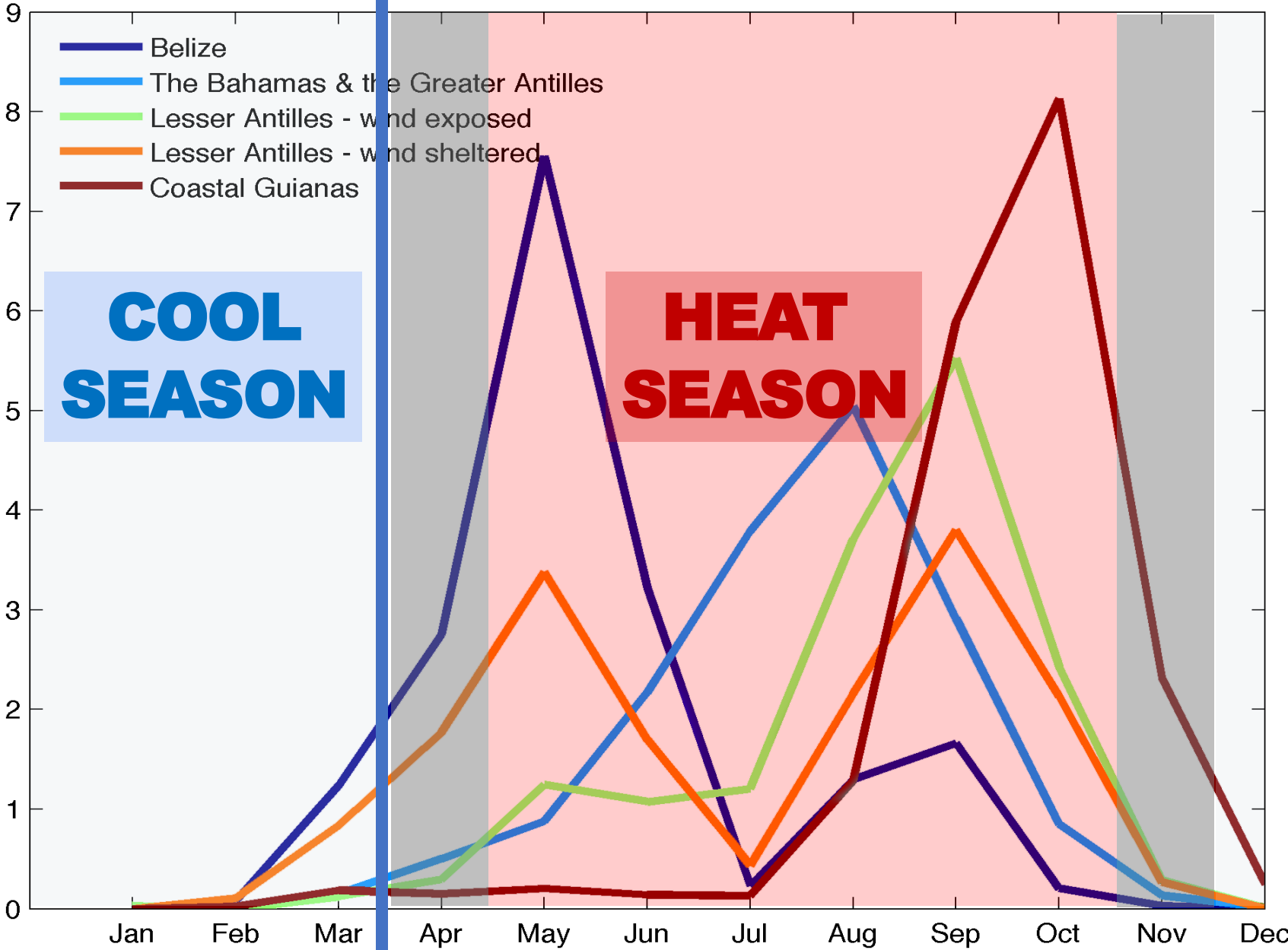


Child care and education:

- **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

Number of days per month spent in heatwaves

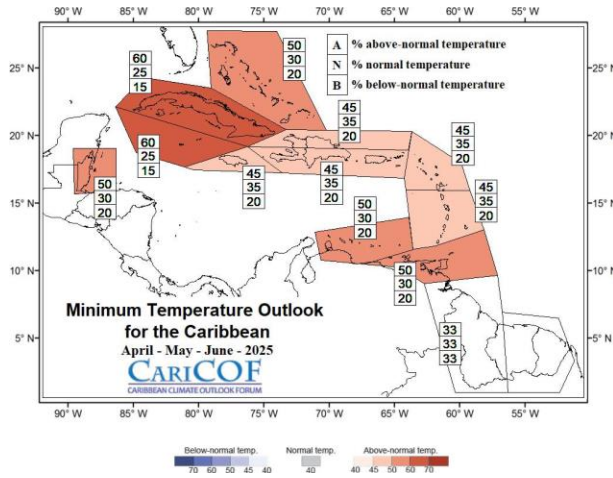
TODAY
(late-March)



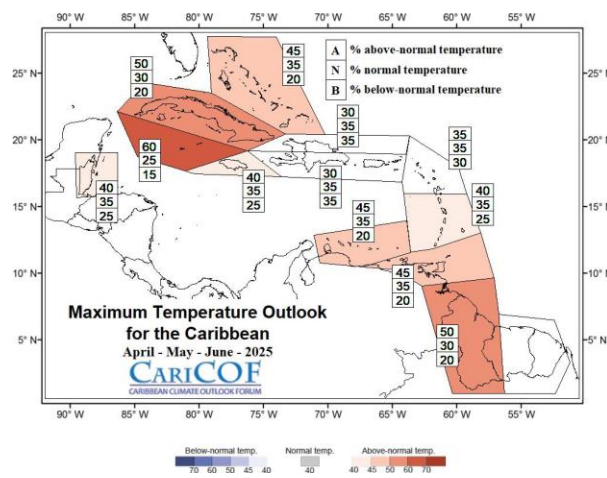
Overall, how hot will the next three to six months be?

Apr-May-Jun 2025

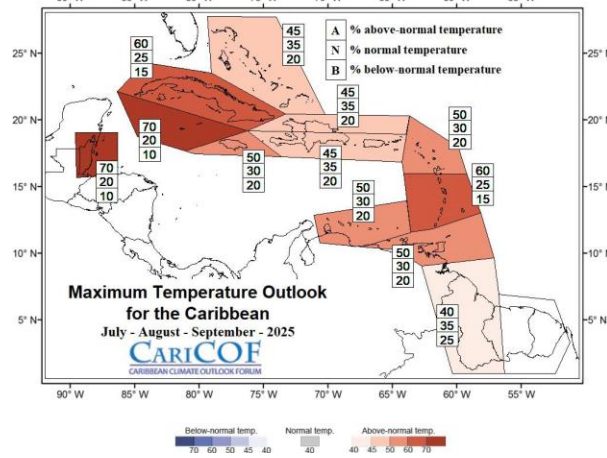
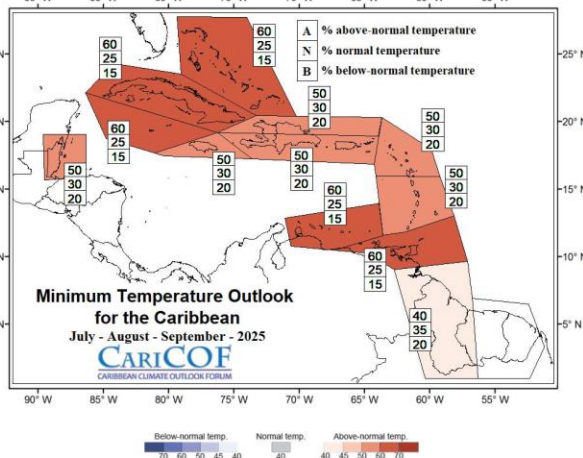
Night-time



Daytime



Jul-Aug-Sep 2025



← Milder Usual Hotter →

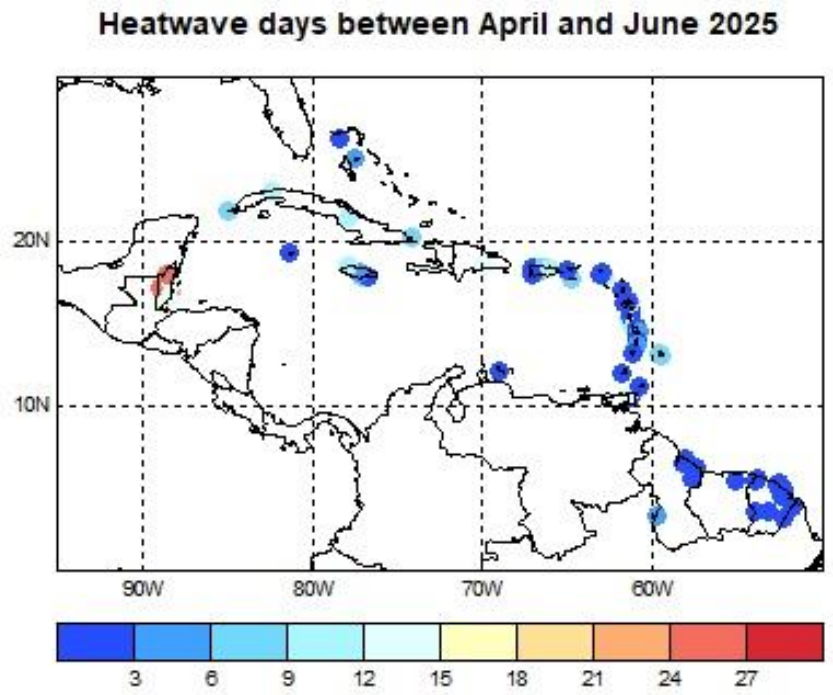
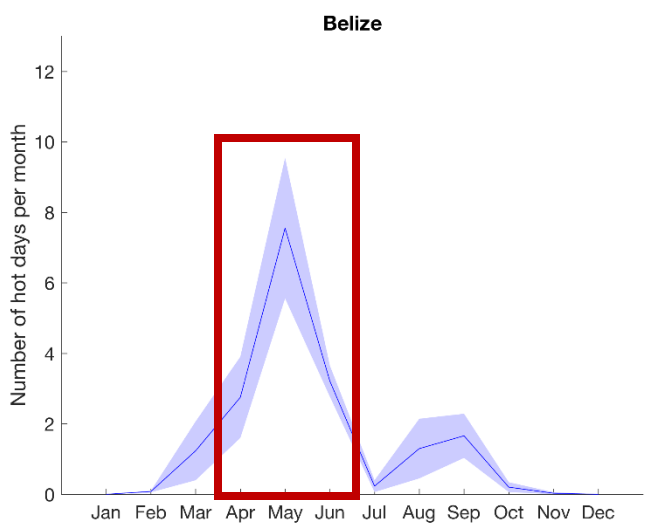
FORECAST

1. April to June, marking the transition into and early part of the Caribbean Heat Season in the Caribbean Islands and Belize is forecast to *likely* be at least as warm as usual.
2. Intense, (near-)record night-time and daytime heat is expected by August and September.

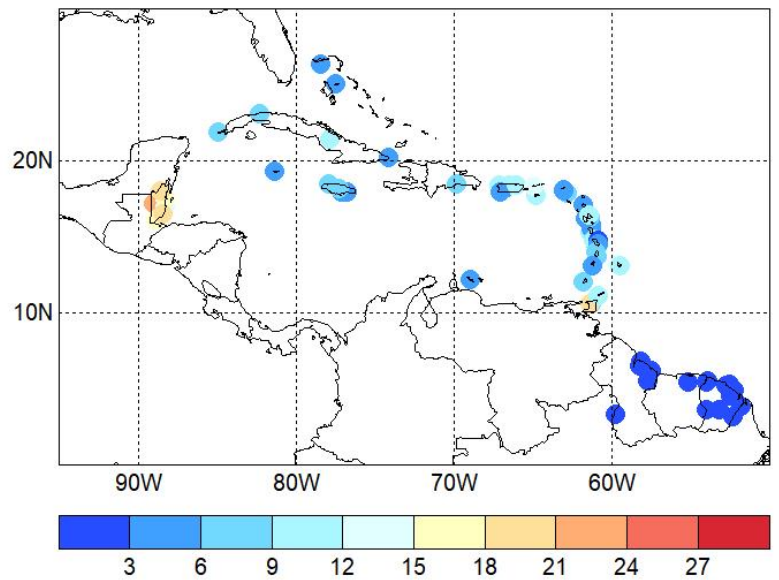
IMPLICATIONS

- 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.

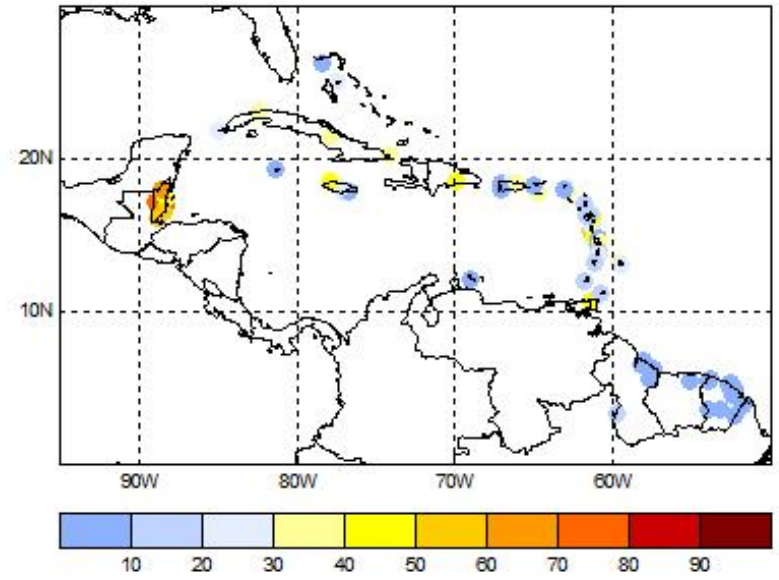
How many heatwave days to expect for April to June 2025 (i.e., the peak heat season in Belize)?



Heatwave days between April and June (1991-2020 avg.)






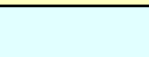
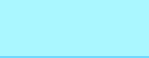


Prob. at least 15 heatwave days between Apr & Jun 2025

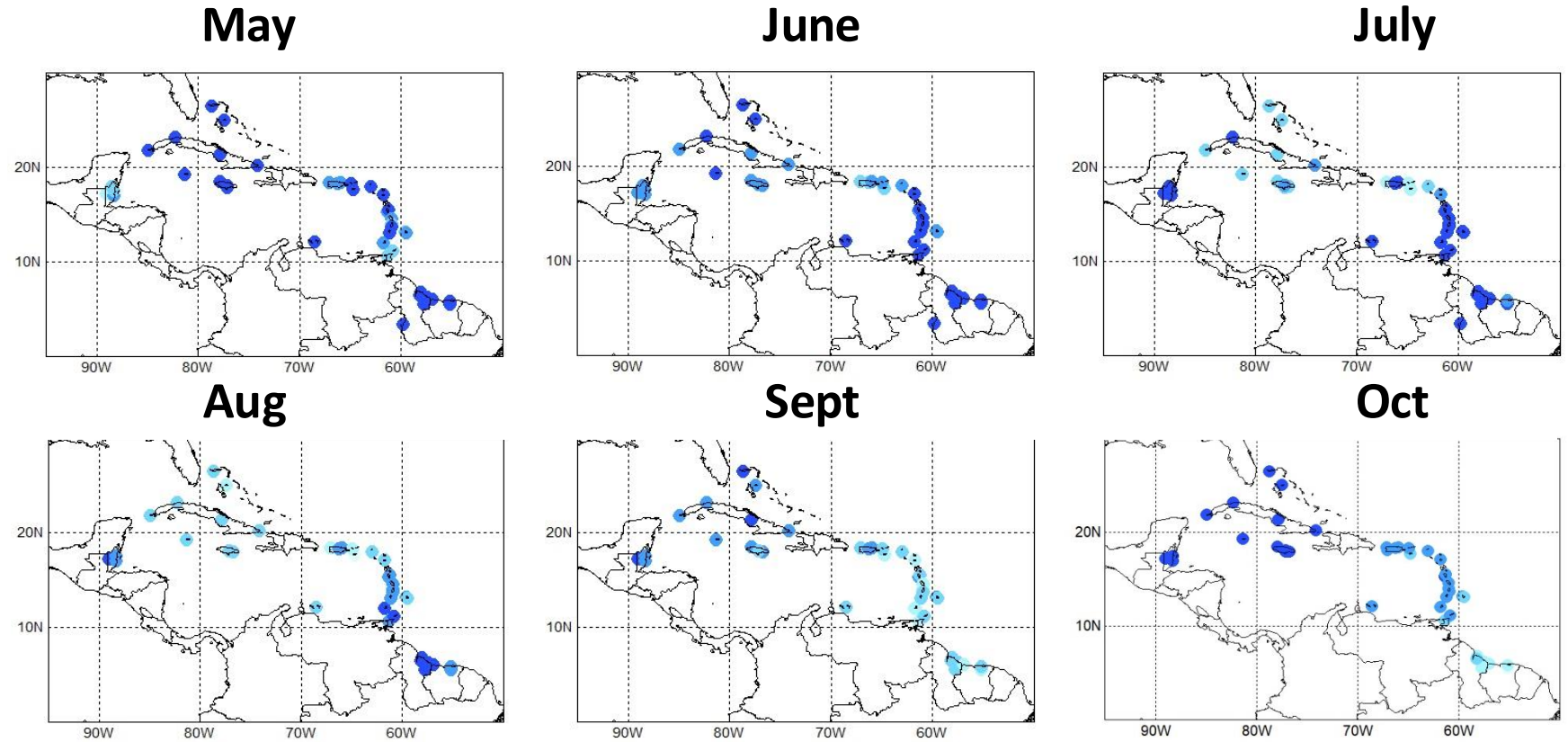


USUALLY: 15-20 heatwave days in inland Belize & Trinidad; 5-15 in Jamaica, Cuba & Puerto Rico; less than 10 elsewhere.

FORECAST: 15-30 heatwave days in inland Belize; no more than 15 in the Antilles, The Bahamas and coastal Belize; no more than 5 in the savannas of southern Guyana; none expected in French Guiana, northern Guyana and Suriname. Coastal Belize, locations in the Greater Antilles, and wind-sheltered sides of the Lesser Antilles *may* observe 15 or more.

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

Heat impact potential	Colour codes	Percentage of time spent in heatwaves
EXTREMELY HIGH		>80%
HIGH	 	50-80%
MODERATE	 	20-50%
SLIGHT		10-20%
MARGINAL		0-10%



- 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.



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

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