

Heat Outlook for September 2020 to February 2021

— Frequent excessive heat until late-October

Dr. Cedric J. VAN MEERBEECK¹ (cmeerbeeck@cimh.edu.bb), Dr. Simon MASON²,
Dr. Hannah Nissan², Dr. Teddy ALLEN², Wazita Scott¹

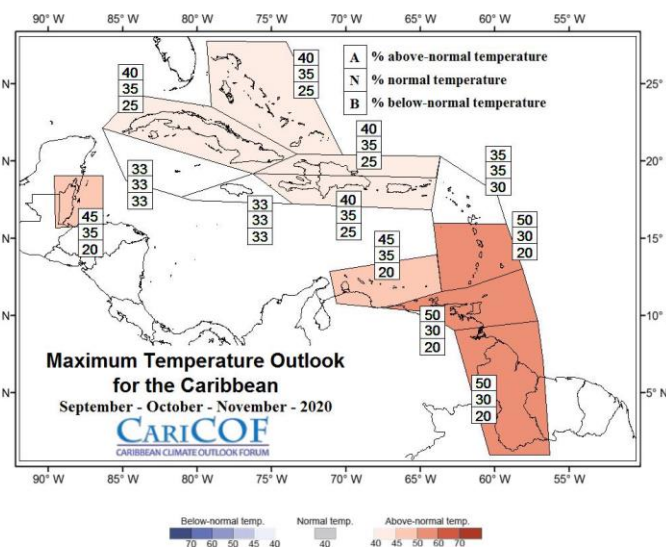
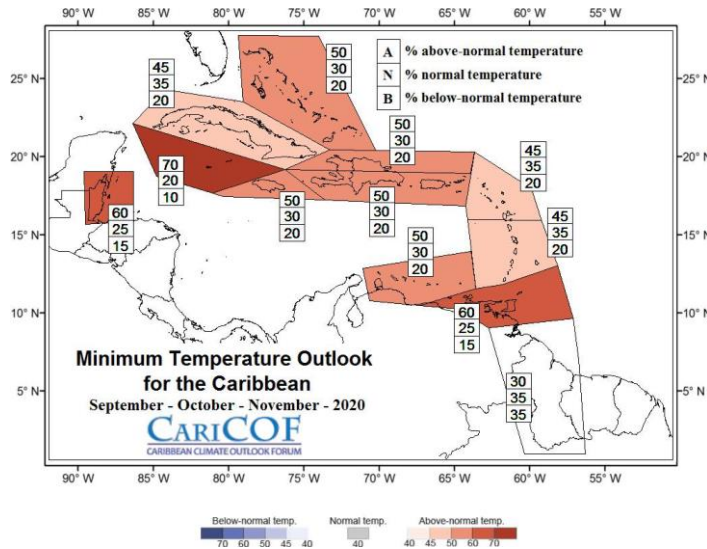
¹Caribbean Institute for Meteorology and Hydrology (CIMH), Barbados

²International Research Institute for Climate and Society (IRI), USA

How hot will the next three to six months be?

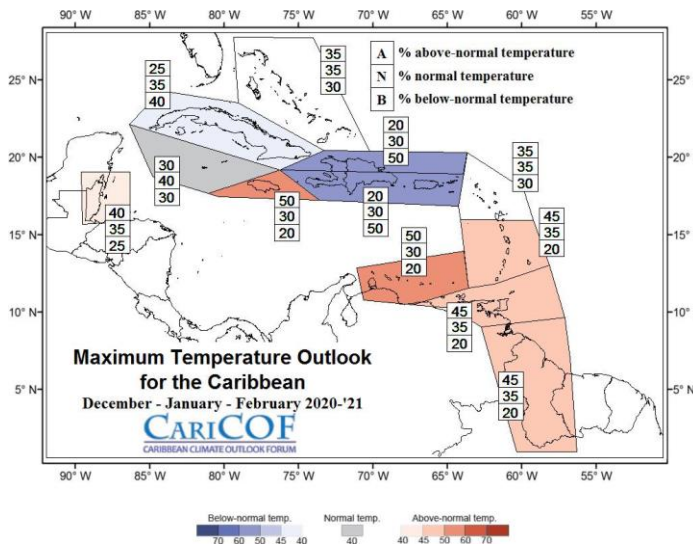
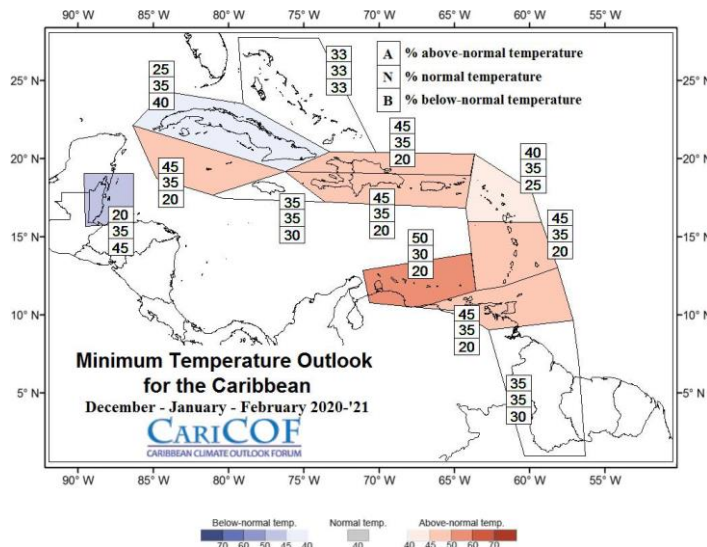
Night time

Day time



Milder Usual Hotter

Milder Usual Hotter



FORECAST:

1. The usual or higher night- and daytime temperatures through the end of the Caribbean Heat Season (May-October) 2020.
2. Though becoming more comfortable from October in the Bahamas, Belize and the Greater Antilles after September and from November elsewhere, the unusual heat may continue through February for many.

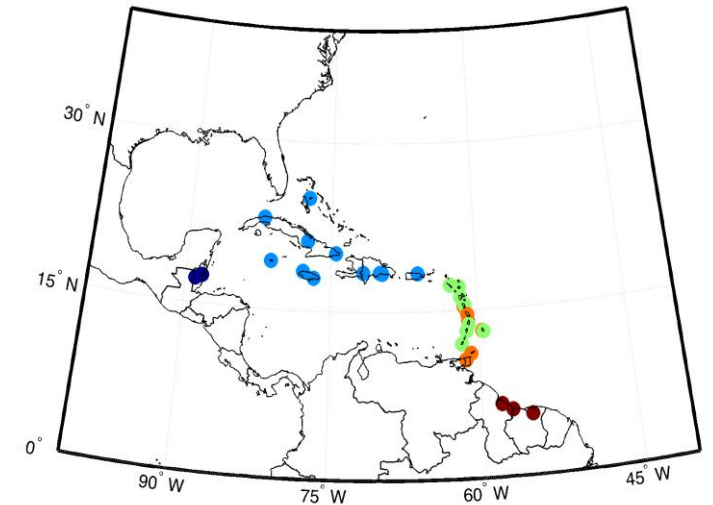
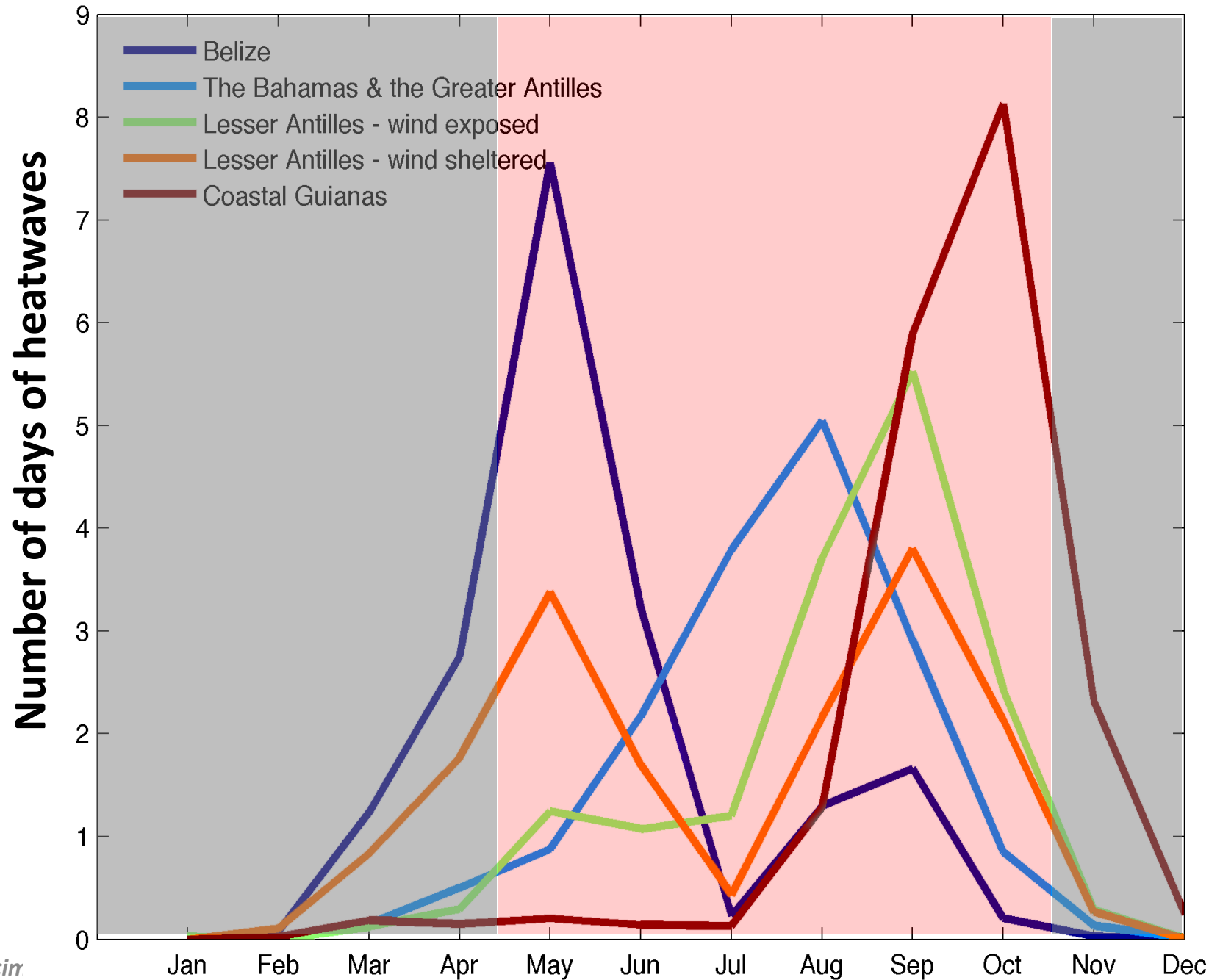
IMPLICATIONS:

- significant heat stress in the vulnerable population & small livestock because of high temperature and humidity through September (Bahamas and Greater Antilles) or October (elsewhere) increases cooling need.

Sep-Oct-Nov 2020

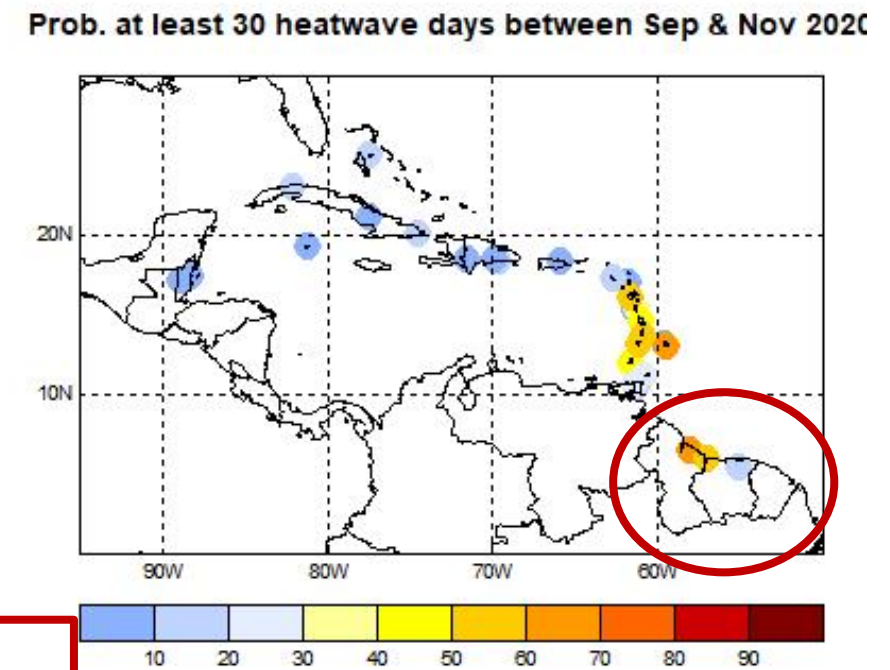
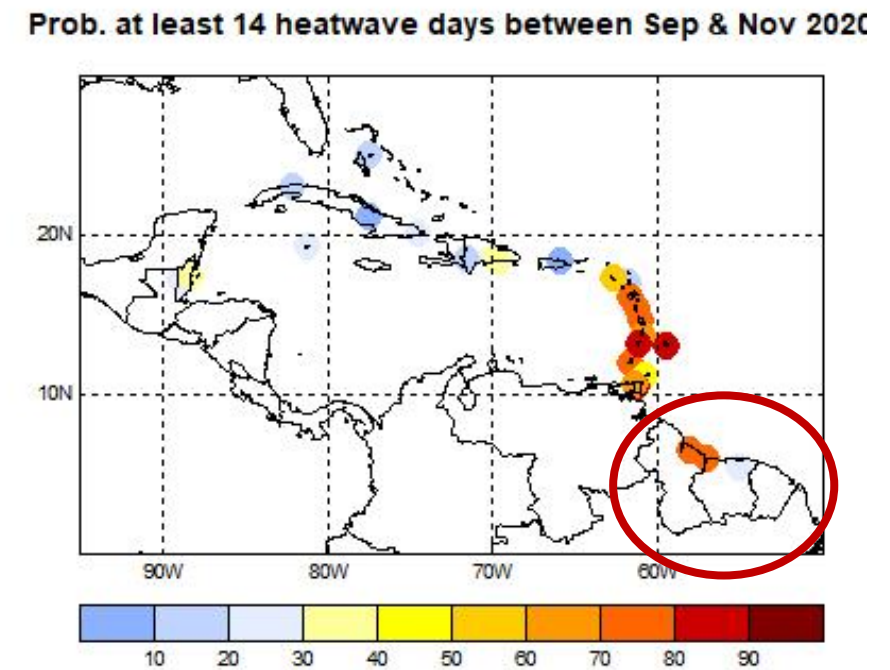
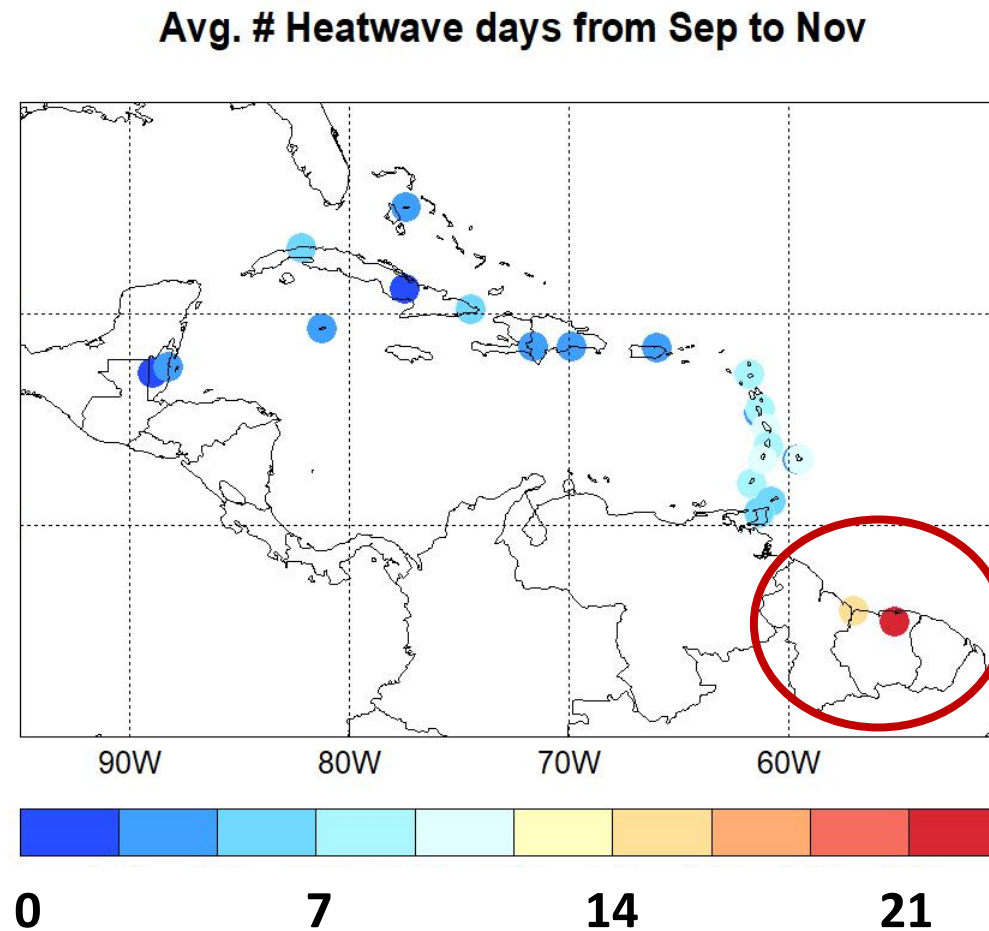
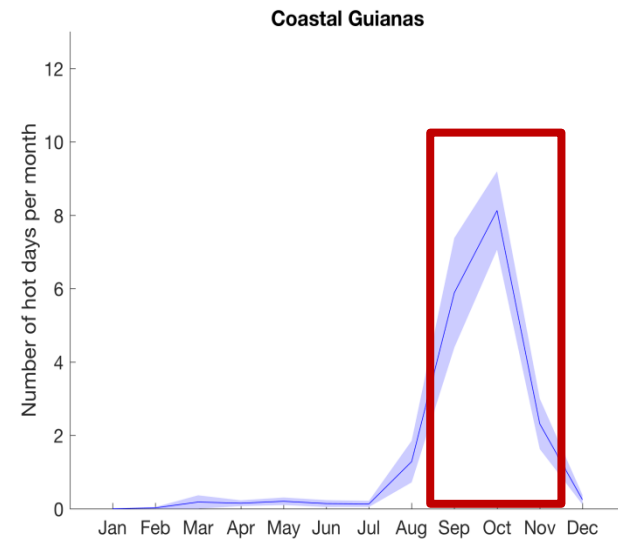
Dec-Jan-Feb 2020-21

HEATWAVES: SEASONALITY



**A CARIBBEAN
HEAT SEASON:
May to Oct.**

What does the peak of the **Heat Season** look like in the **Guianas**, i.e. September to November?



USUALLY: around 14-21 heatwave days over 3 months.
FORECAST: 70% and 50% chance for at least 14 and 30 heatwave days, respectively in Guyana. Possibly fewer in Suriname.

How many heatwave days from September till November 2020?

USUALLY:

- Usually, there are up to 5 heatwave days in the Bahamas, Belize and the Greater Antilles between September and November, 7-12 in the Lesser Antilles and 14-21 in the coastal Guianas.

FORECAST:

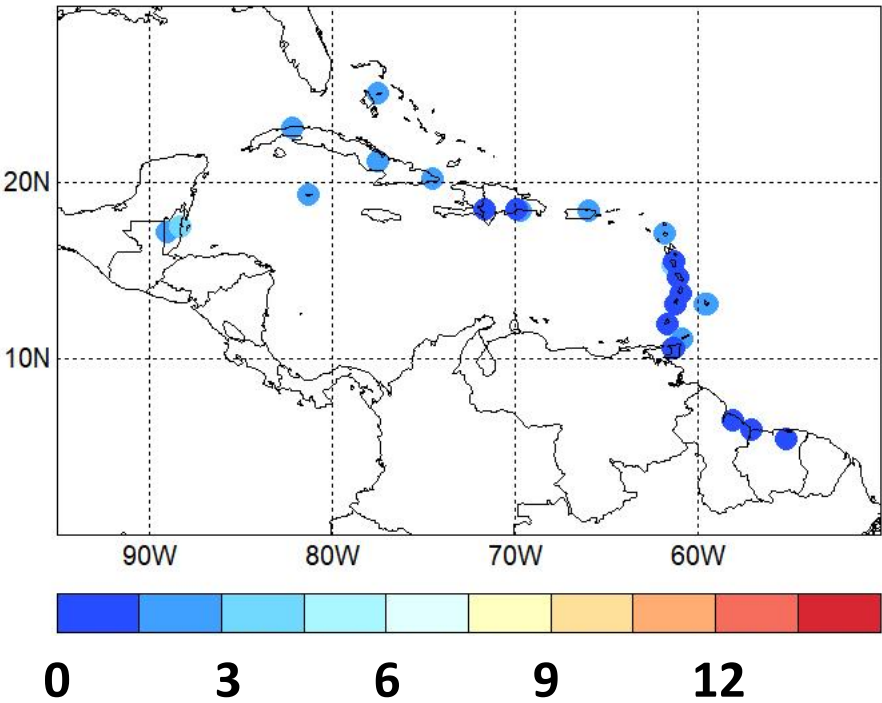
- The number of heatwave days is expected to be up to twice the usual number or higher during the peak and tail end of the 2020 Heat Season in the Lesser Antilles.
- Note that areas with more abundant rainfall than usual will see daytime temperatures and the frequency of heatwaves tempered.

IMPLICATIONS:

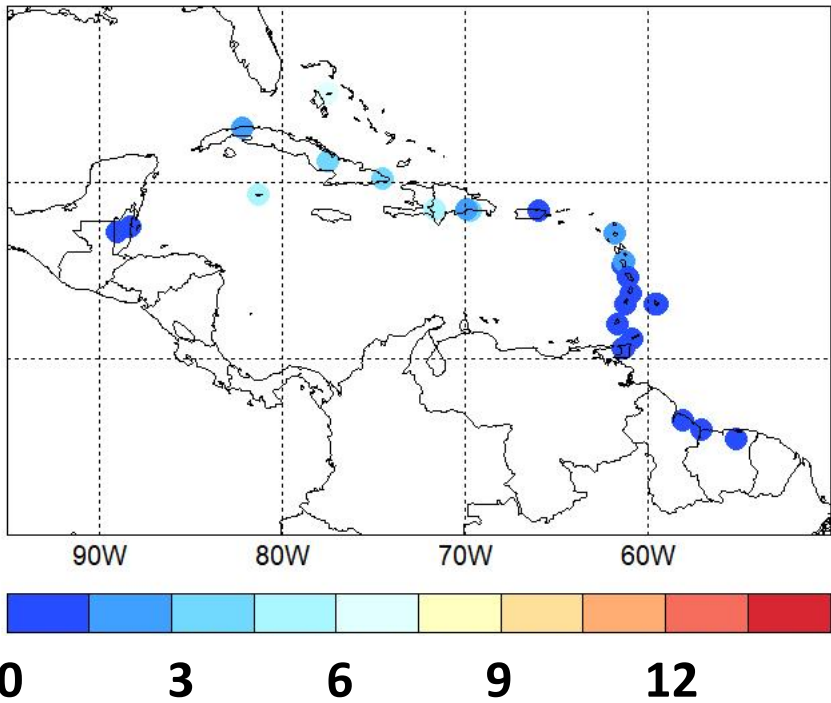
- In the event of heatwaves, of which several can occur (especially during dry spells), heat stress in human populations or livestock will sharply increase.
- Heat stress at the peak of the Heat Season on par with hottest years in the Lesser Antilles (e.g. in 2016).

Historically, how many heatwave days on average per month?

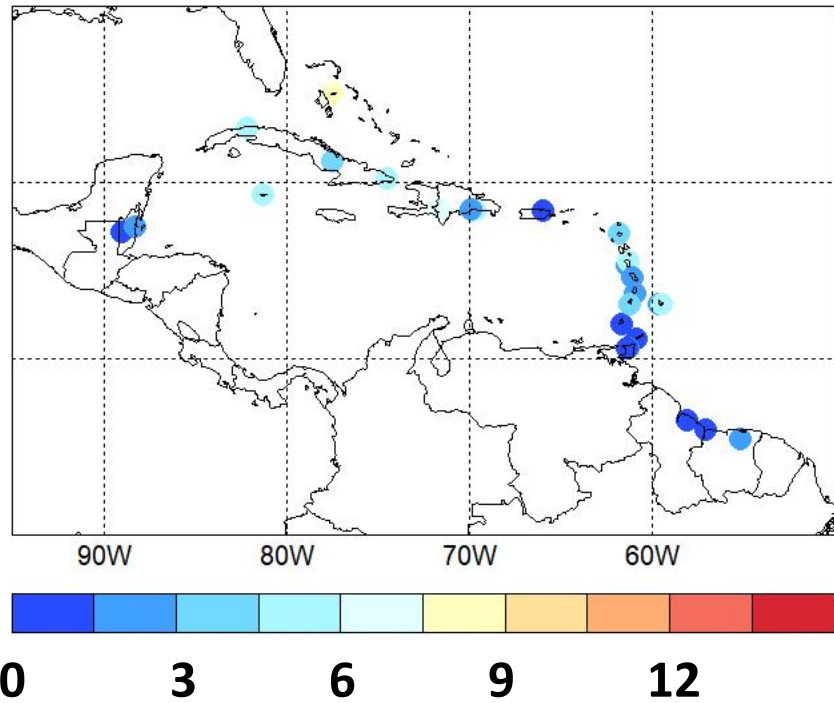
Avg. # heatwave days in June



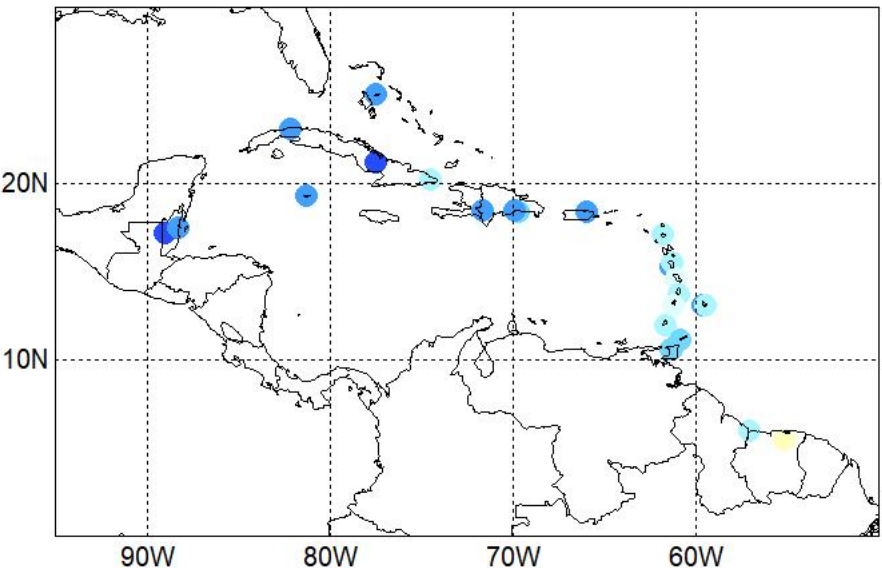
Avg. # of heatwave days in July



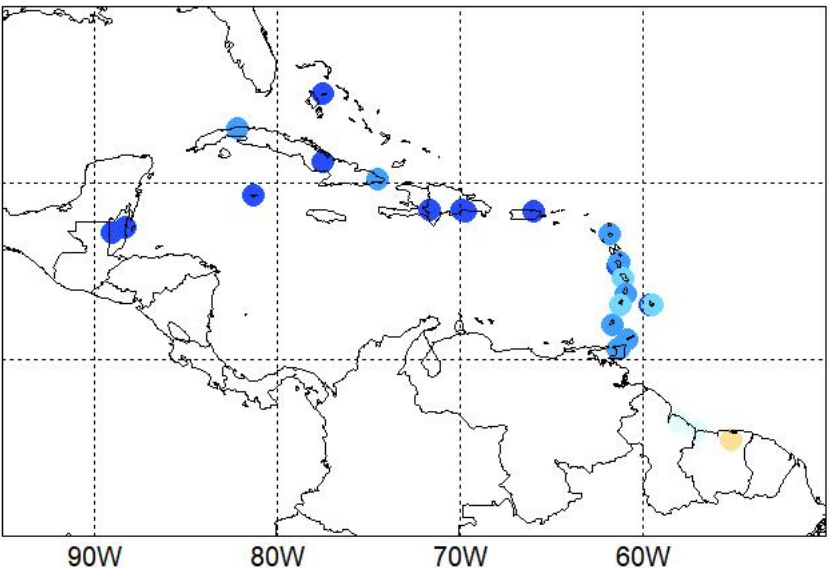
Avg. # heatwave days in August



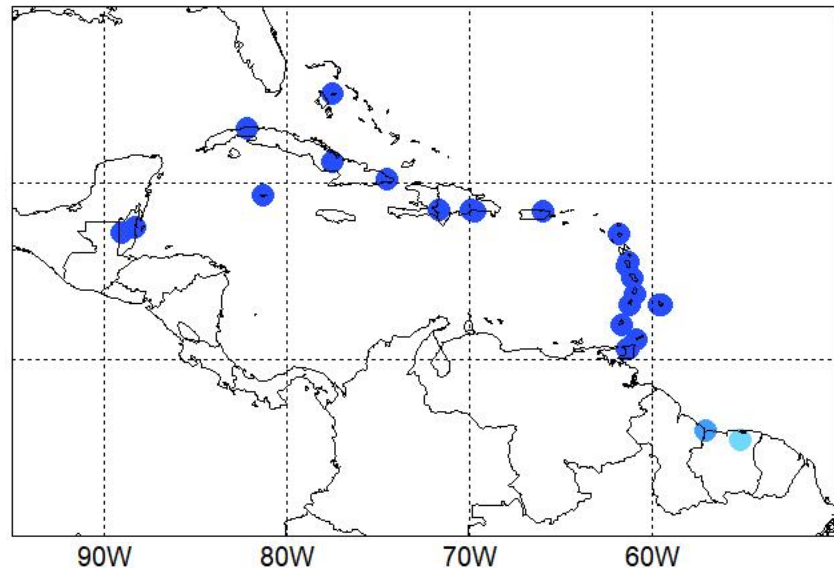
Avg. # heatwave days in September



Avg. # heatwave days in October

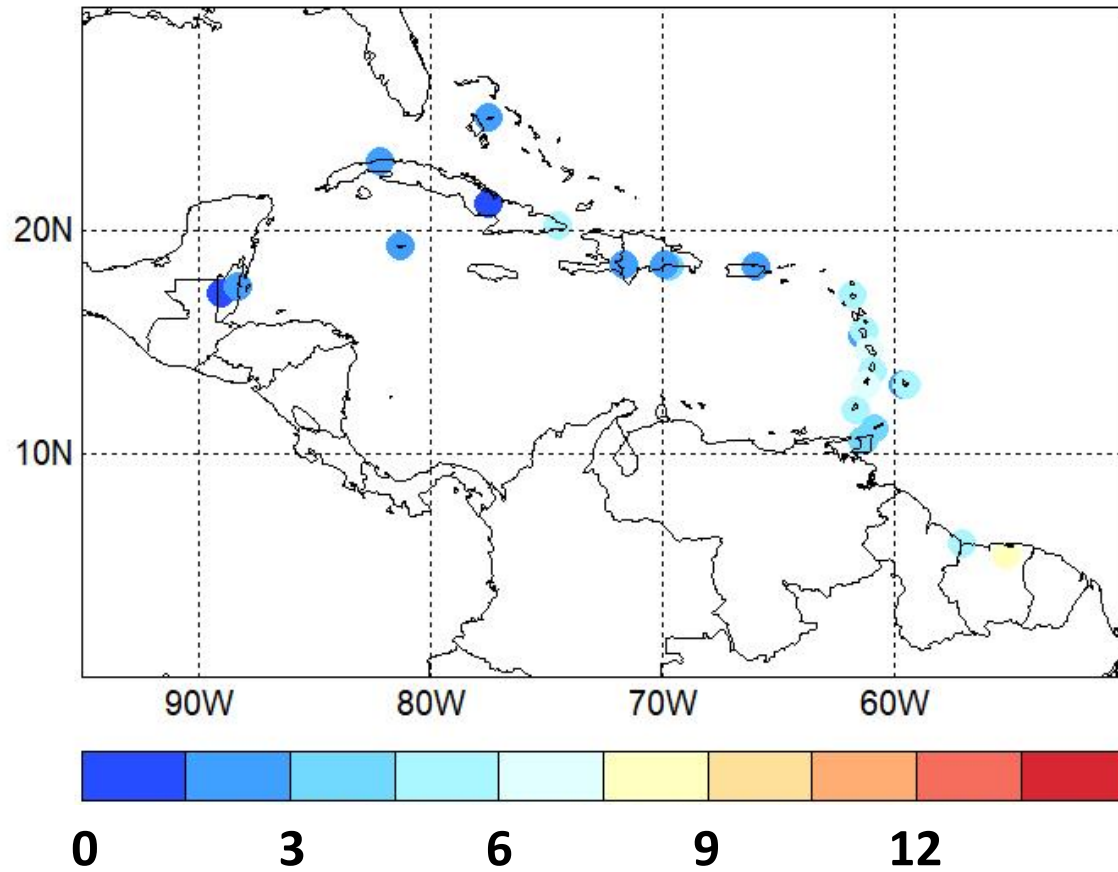


Avg. # heatwave days in November



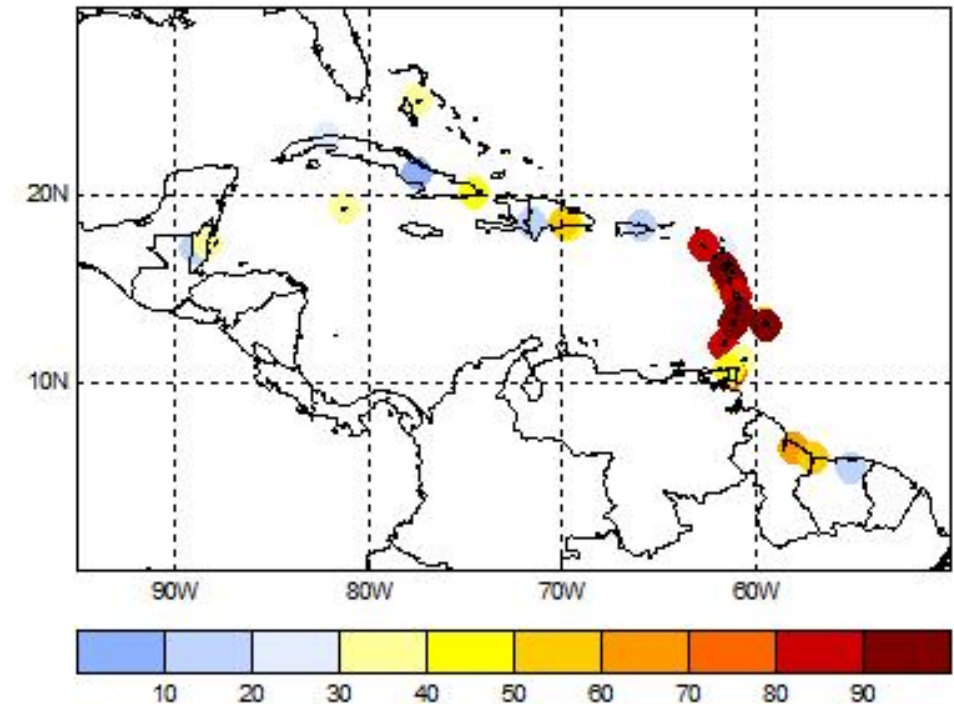
How many heatwave days to expect in September 2020?

Avg. # heatwave days in September

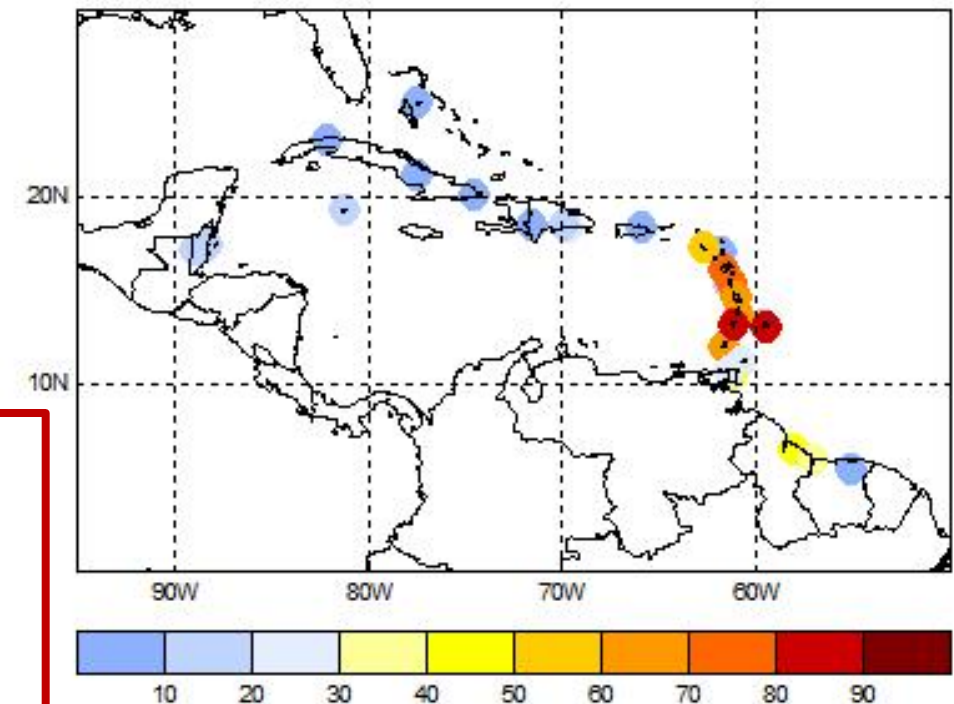


USUALLY: Generally 5 to 9 heatwave days eastward of PR.
FORECAST: 60-90% chance of at least 14 heatwave days in Sept. this year in Barbados, the Leeward & Windward Islands.

Prob. at least 7 heatwave days in Sept. 2020



Prob. at least 14 heatwave days in Sept. 2020





CARICOF
CARIBBEAN CLIMATE OUTLOOK FORUM

caricof@cimh.edu.bb

rcc.cimh.edu.bb

Caribbean Institute for Meteorology and Hydrology

TEL: (246) 425-1362/3 | FAX: (246) 424-4733