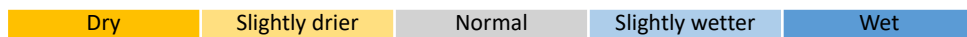


**Seasonal precipitation predictions in the Desert Locust summer/winter/spring breeding areas
(November 2023 – April 2024)**

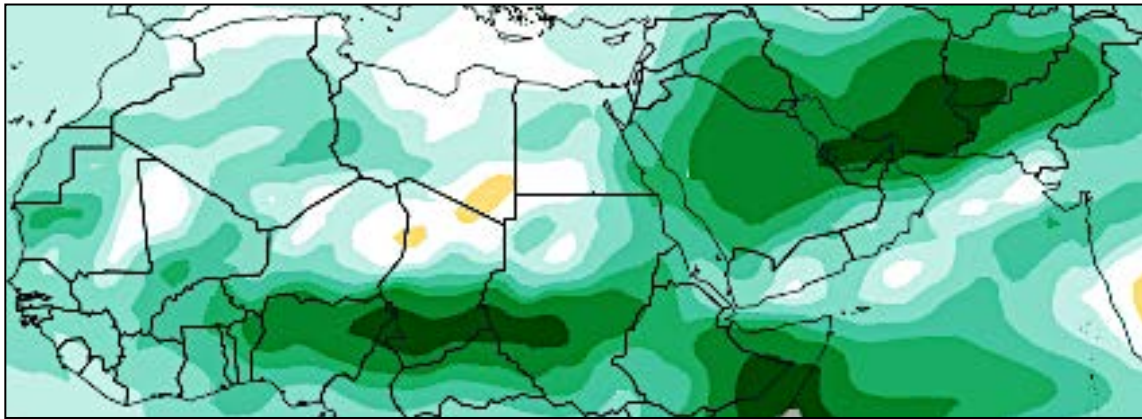
Summer will finish later than normal in northern Sahel with above-normal rains in Mali, Niger and Sudan during parts of November. The latest models predict a wet winter season in the Desert Locust recession from November to February in northwest Somalia and the Gulf of Aden. Farther north along the Red Sea coast of Eritrea, Sudan, Yemen and Saudi Arabia, there is more diversity among the model forecasts. This uncertainty is due to El Nino in the months ahead, where a classical forecast would favour less rainfall. In spring, there may be slightly wetter rains starting in February in southeast Iran, southwest Pakistan, and maybe the interior of Saudi Arabia.

PRECIPITATION ANOMALY	Nov	Dec	Jan	Feb	Mar	Apr
Algeria (south)	Wet					
Chad						
Djibouti	Wet	Slightly drier	Slightly drier	Slightly drier		
Egypt (SE Red Sea)	Wet	Slightly drier	Slightly drier	Slightly drier	Slightly drier	Slightly drier
Eritrea (western–summer, coastal–winter)	Wet					
Ethiopia (Afar–summer, Somali–autumn)	Wet					
India (Rajasthan, Gujarat)						
Iran (south–spring)				Wet	Wet	Wet
Mali (northeast)	Wet					
Mauritania (south–summer, NW–autumn)	Wet					
Morocco (W Sahara–autumn, Atlas–spring)					Wet	Slightly drier
Niger (Tamesna, Air)	Wet					
Oman (spring)					Wet	Wet
Pakistan (southwest–spring, east–summer)				Wet	Wet	Wet
Saudi Arabia (Red Sea, interior–spring)	Wet			Wet		
Somalia (N coast–winter, N interior–spring)	Wet	Wet	Wet	Wet		
Sudan (interior–summer, coastal–winter)	Wet					
Yemen (interior–summer, coastal–winter)	Wet	Wet	Wet	Wet		Slightly drier

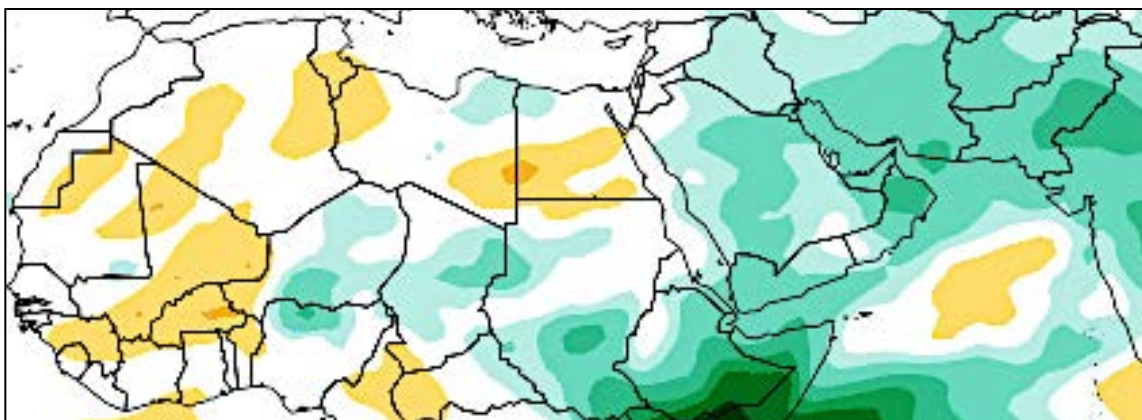


The latest seasonal precipitation predictions provided by the World Climate Service (WCS) cover the spring, summer and winter breeding areas of the Desert Locust. This is one of the most sophisticated products available, derived from **eight** models: CFSv2, ECMWF, and Copernicus (CMCC, DWD, ECCO, JMA, Météo-France, UKMO). The results of each model are presented below.

Predicted rainfall anomaly

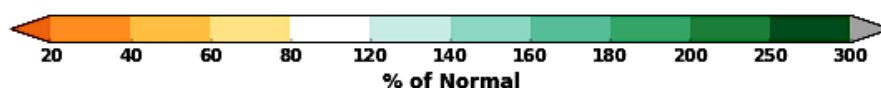


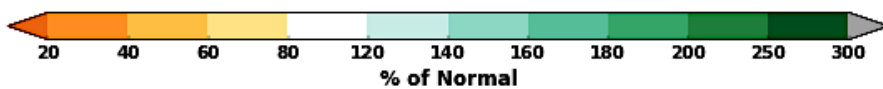
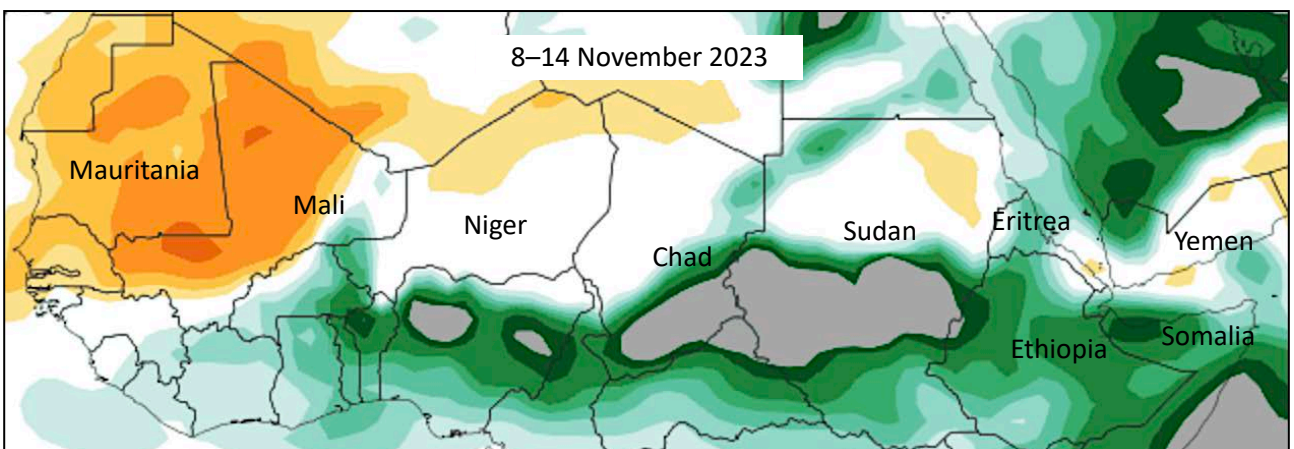
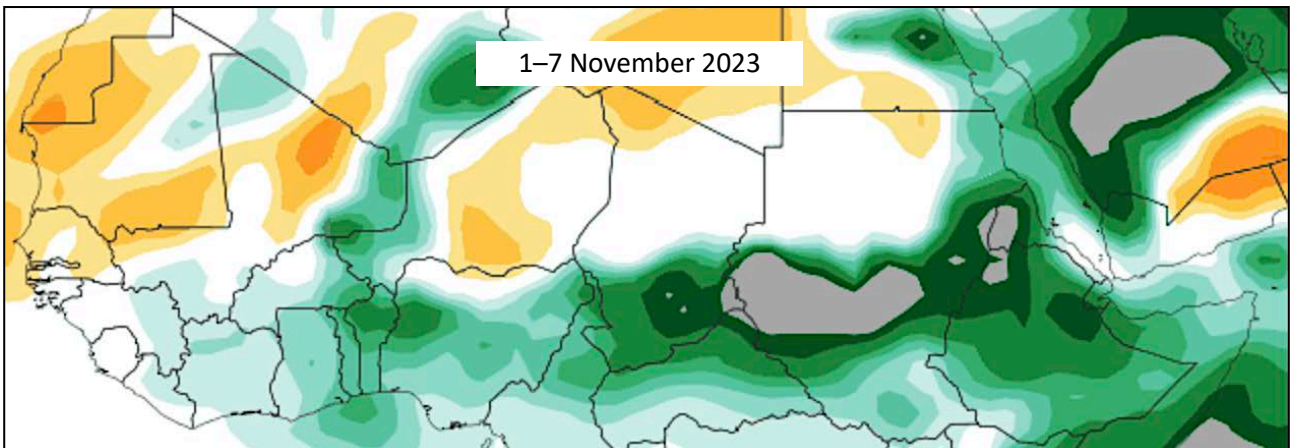
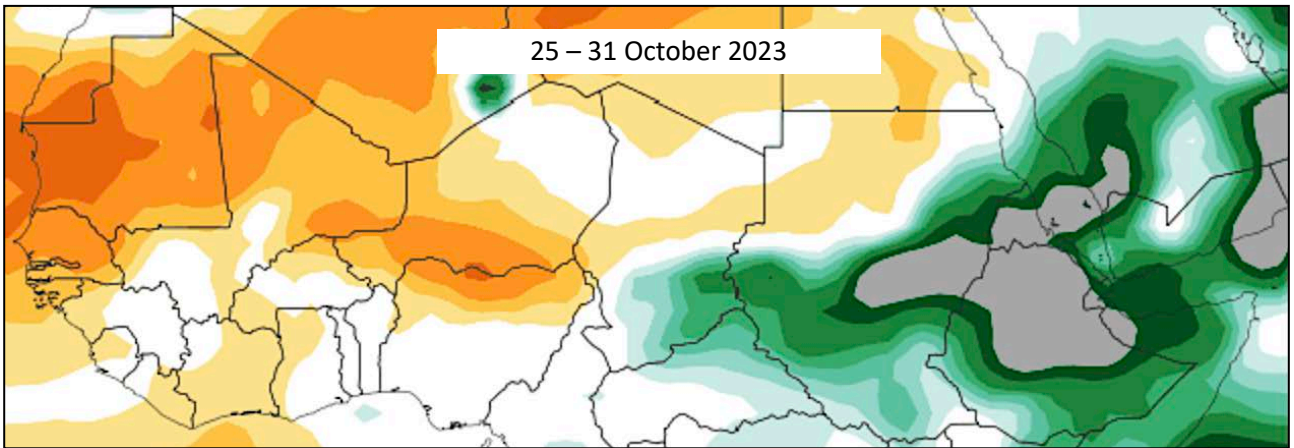
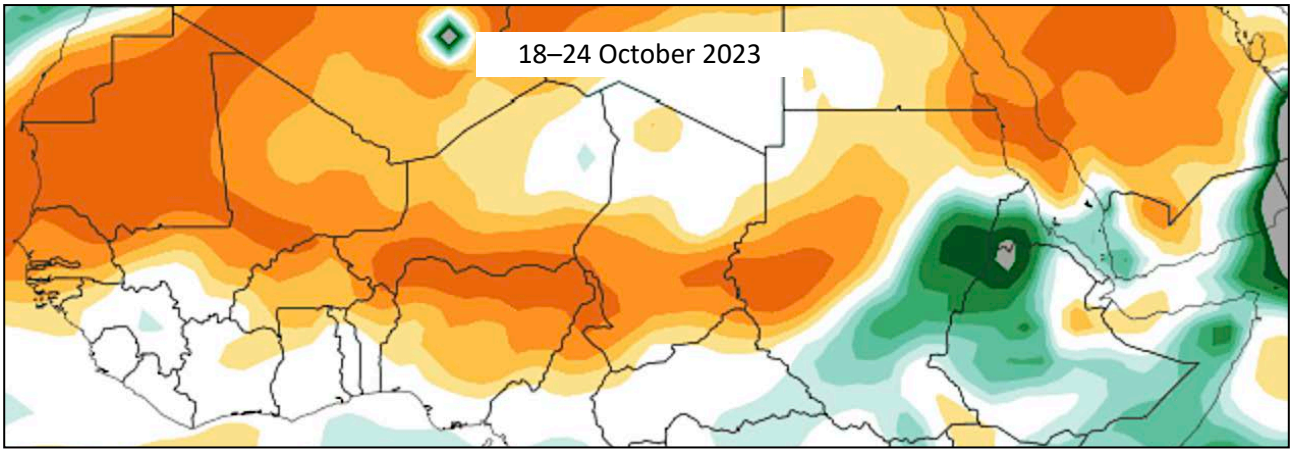
Winter breeding areas (November 2023)



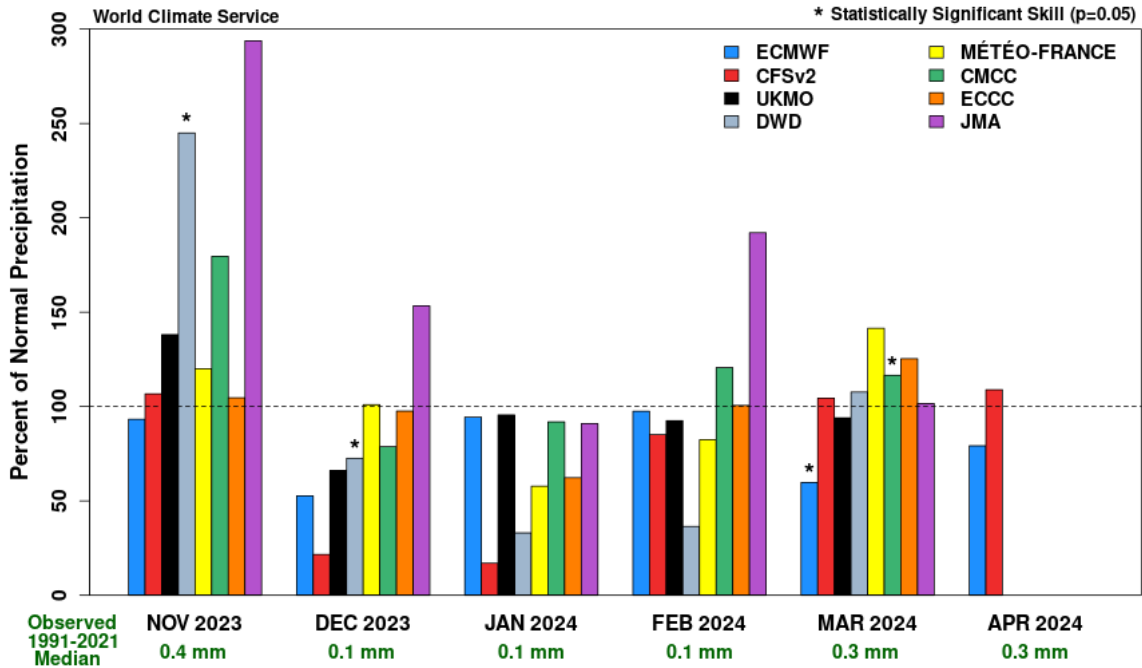
Winter breeding areas (February 2024)

How to interpret the precipitation forecast charts (see following pages). A value of 100 on the left axis indicates normal rainfall; values less than 100 indicates drier than normal conditions; more than 100 indicates wetter than normal. Little variation between models suggests greater confidence and reliability. An asterisk indicates the most reliable model in each month. When available, the historically best model during the entire forecast period in the region is indicated in the caption.



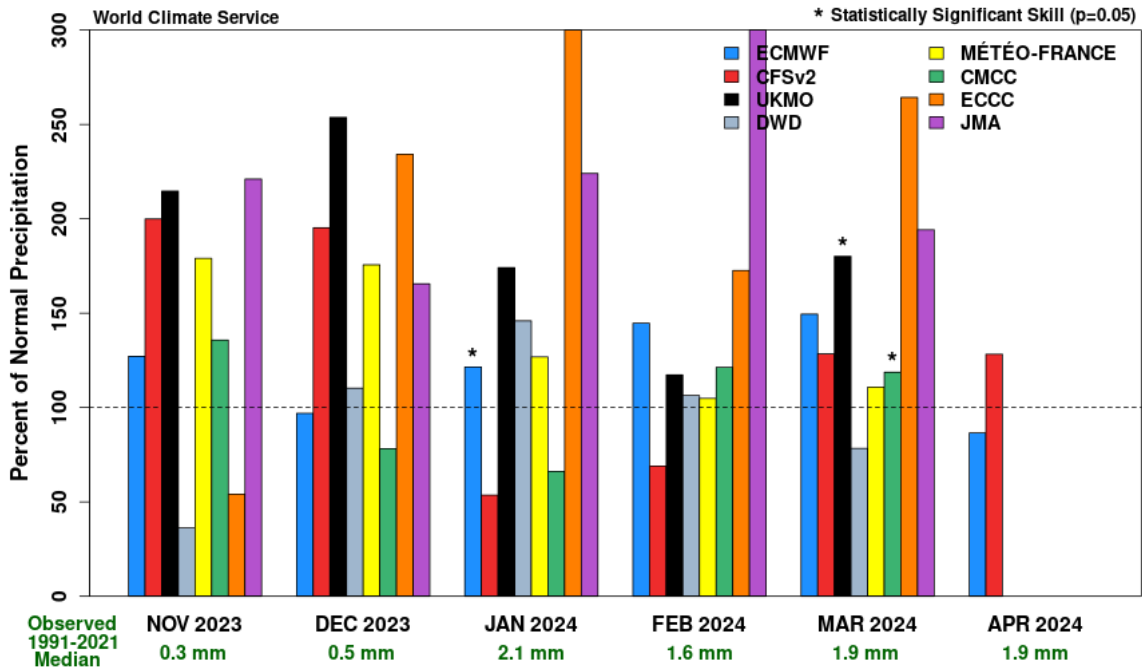


**Precipitation Forecast
Summer Breeding Region (Western)
Models Initialized October 2023**



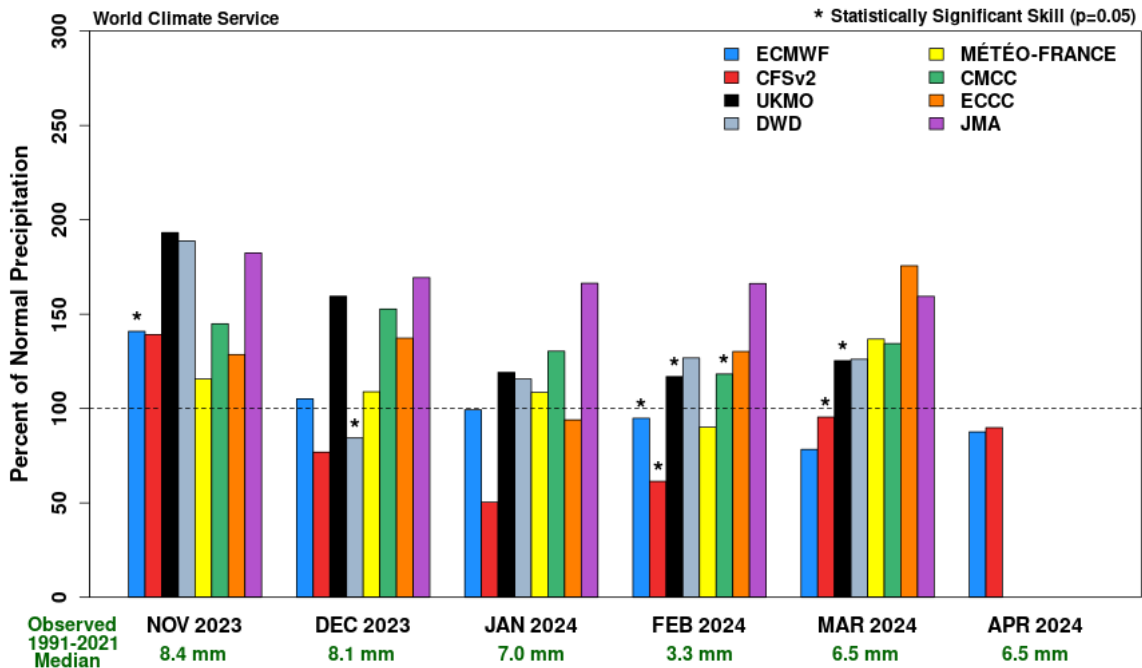
End of summer breeding, November (Sahel of W Africa to Sudan/Eritrea)

**Precipitation Forecast
Summer Breeding Region (Eastern)
Models Initialized October 2023**



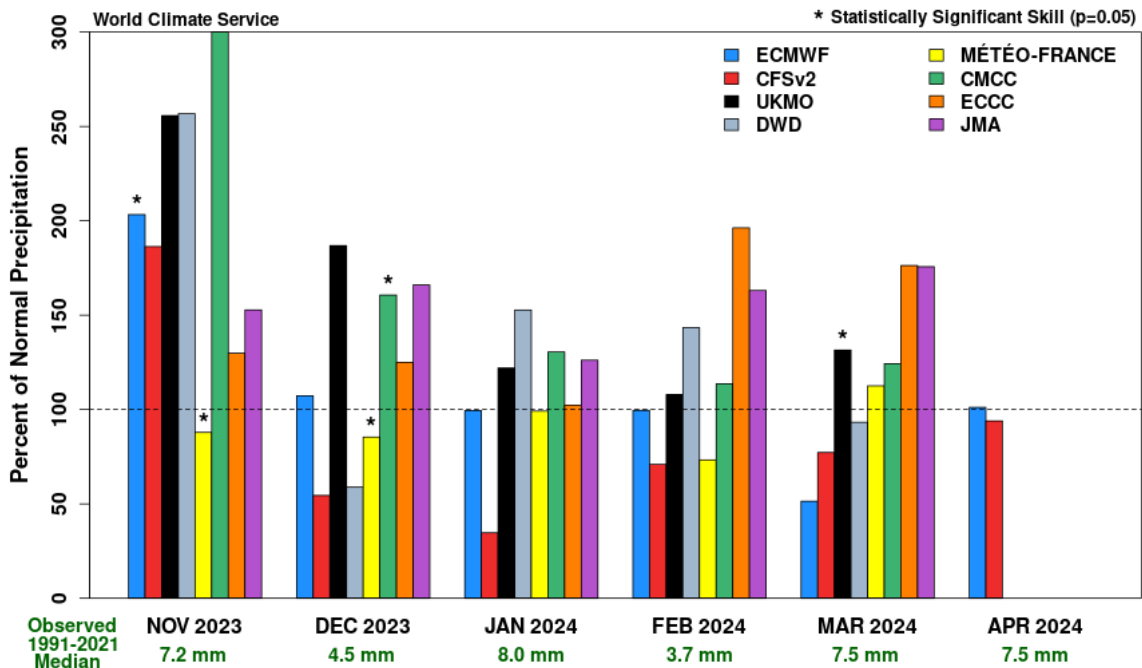
End of summer breeding, November (India/Pakistan)

**Precipitation Forecast
Winter Breeding Region
Models Initialized October 2023**



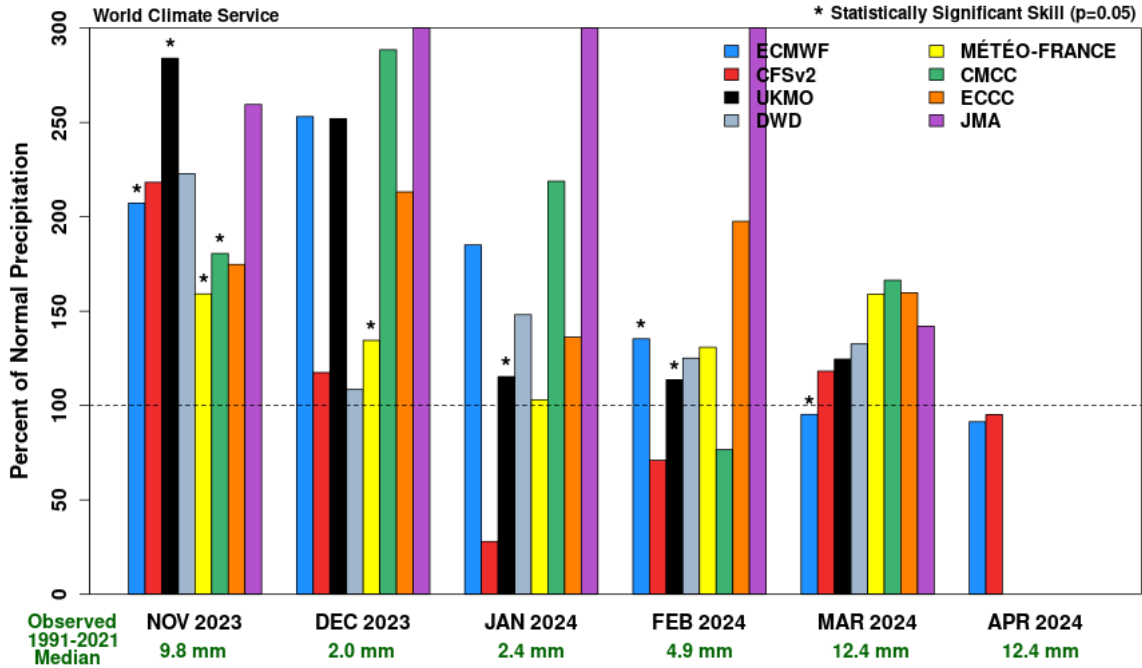
Winter breeding, November–March/April (Red Sea / Gulf of Aden)

**Precipitation Forecast
Spring Breeding Region (Central)
Models Initialized October 2023**



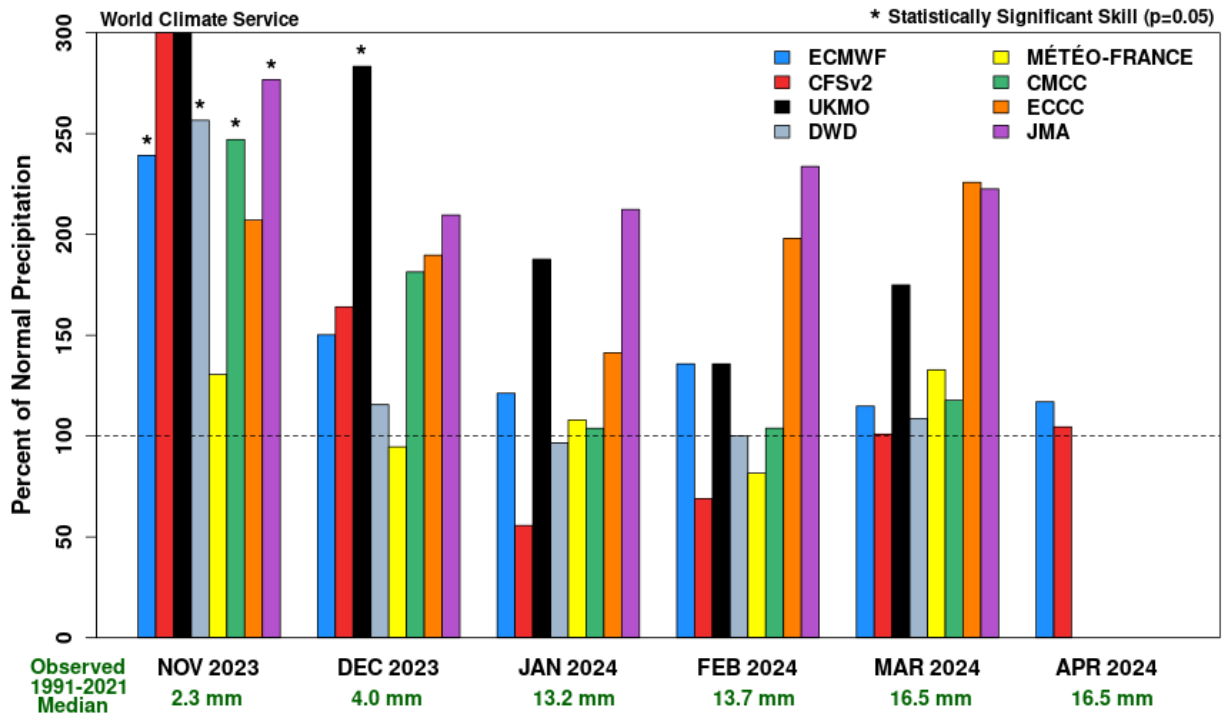
Spring breeding, March–April (Arabian Peninsula)

Precipitation Forecast
Spring Breeding Region (Northeast Africa)
Models Initialized October 2023



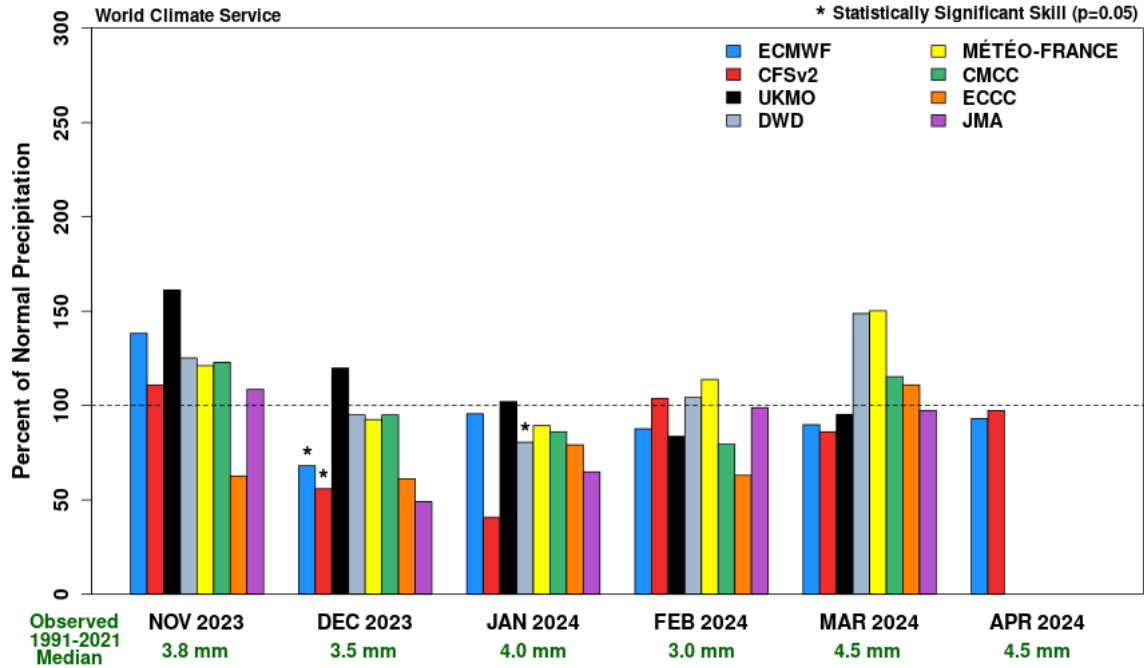
Spring breeding, March–April (Horn of Africa)

Precipitation Forecast
Spring Breeding Region (Eastern)
Models Initialized October 2023



Spring breeding, February–April (SE Iran / SW Pakistan)

Precipitation Forecast
Spring Breeding Region (Western)
Models Initialized October 2023



Spring breeding, March–April (NW Africa)