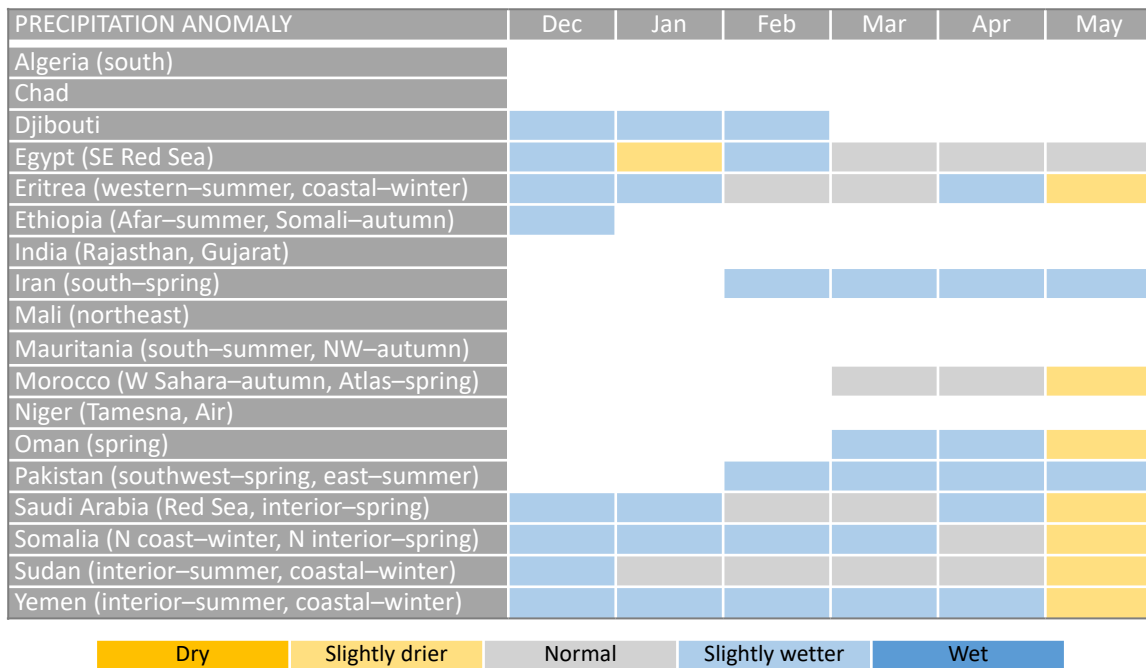


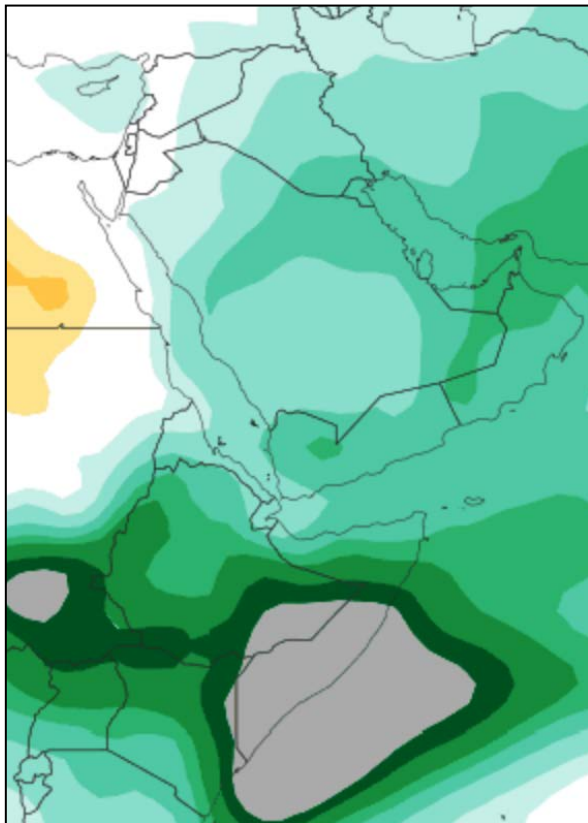
**Seasonal precipitation predictions in the Desert Locust winter/spring breeding areas
(December 2023 – May 2024)**

The latest models predict a wet winter season in the Desert Locust recession area from December to February along the Gulf of Aden in northwest Somalia and southern Yemen due to El Niño and the Indian Ocean Dipole. Some models suggest a slightly drier rain on the southern Red Sea coast in Eritrea, Sudan, Yemen, and southwest Saudi Arabia while there is more uncertainty on the northern Red Sea coast of southeast Egypt and northern Saudi Arabia. A second generation of breeding is likely to begin in January or February, especially in the southern Red Sea and Gulf of Aden coasts. During the spring season, slightly wetter rains could commence in February in southeast Iran, southwest Pakistan, and maybe the interior of Saudi Arabia in April.

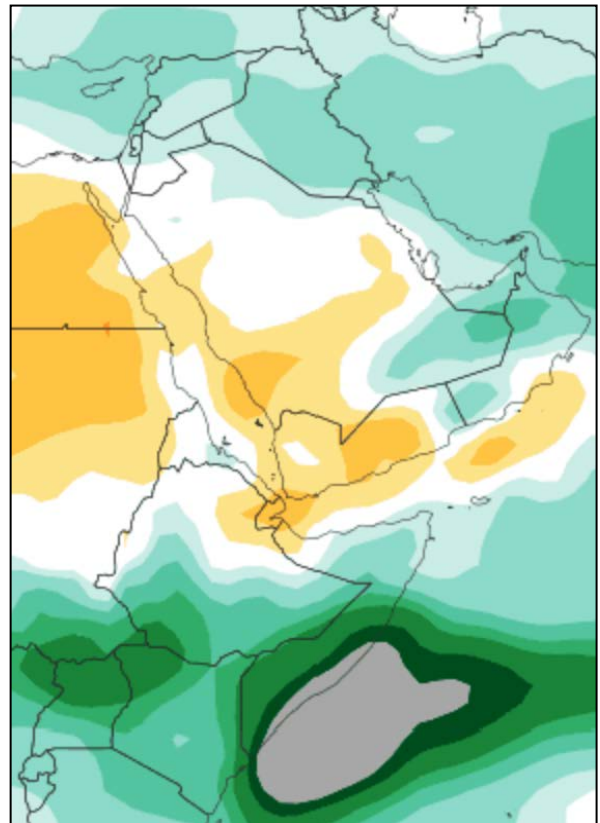


The latest seasonal precipitation predictions provided by the World Climate Service (WCS) cover the spring, summer and winter breeding areas of the Desert Locust. This is one of the most sophisticated products available, derived from **eight** models: CFSv2, ECMWF, and Copernicus (CMCC, DWD, ECCO, JMA,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

Predicted rainfall anomaly

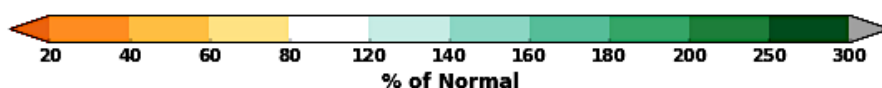


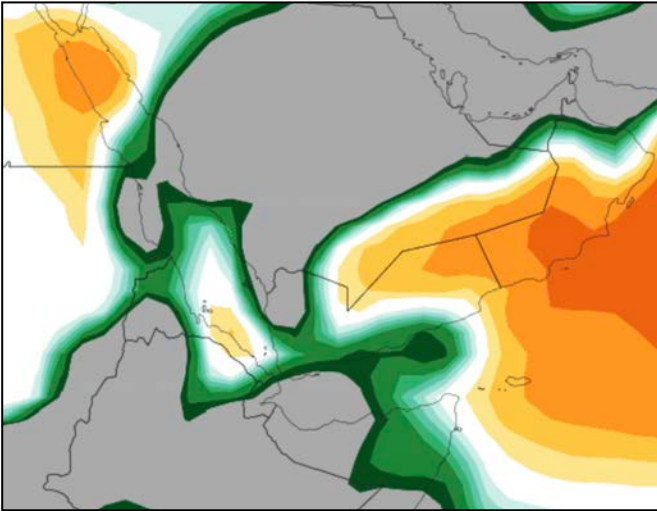
Copernicus Multi-Model Maps
Winter breeding area
(December 2023)



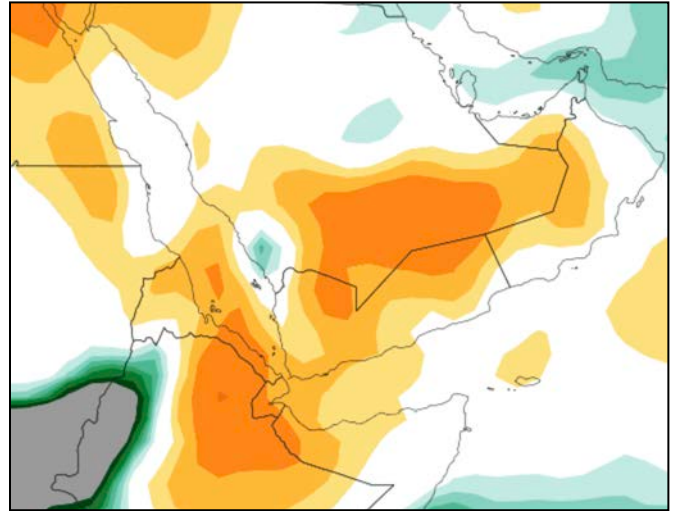
Multi-Model Maps
Winter breeding area
(December 2023)

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.

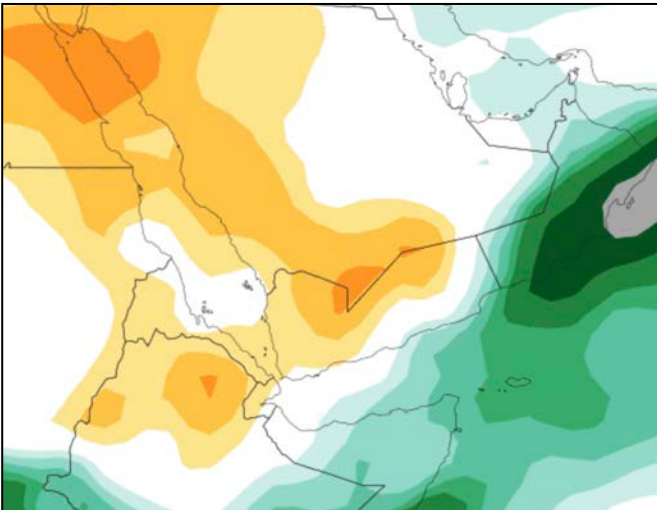




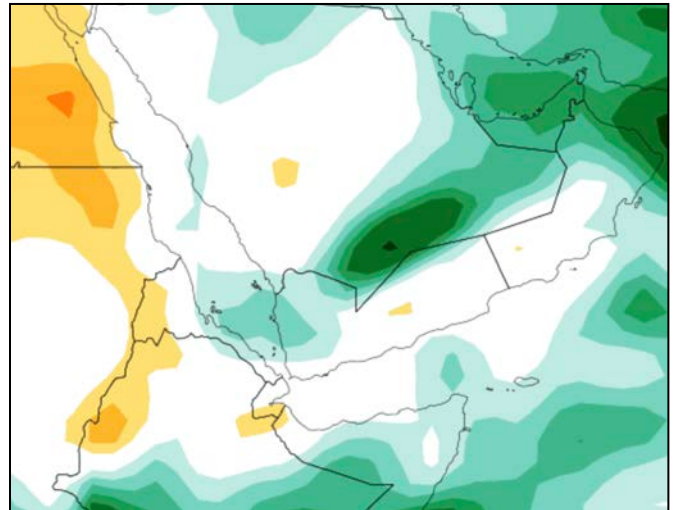
16–22 November 2023



23–29 November 2023

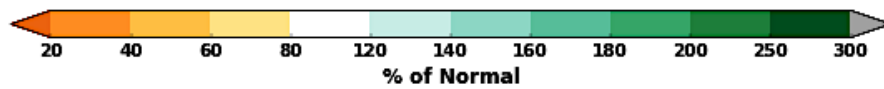


30 November – 6 December 2023

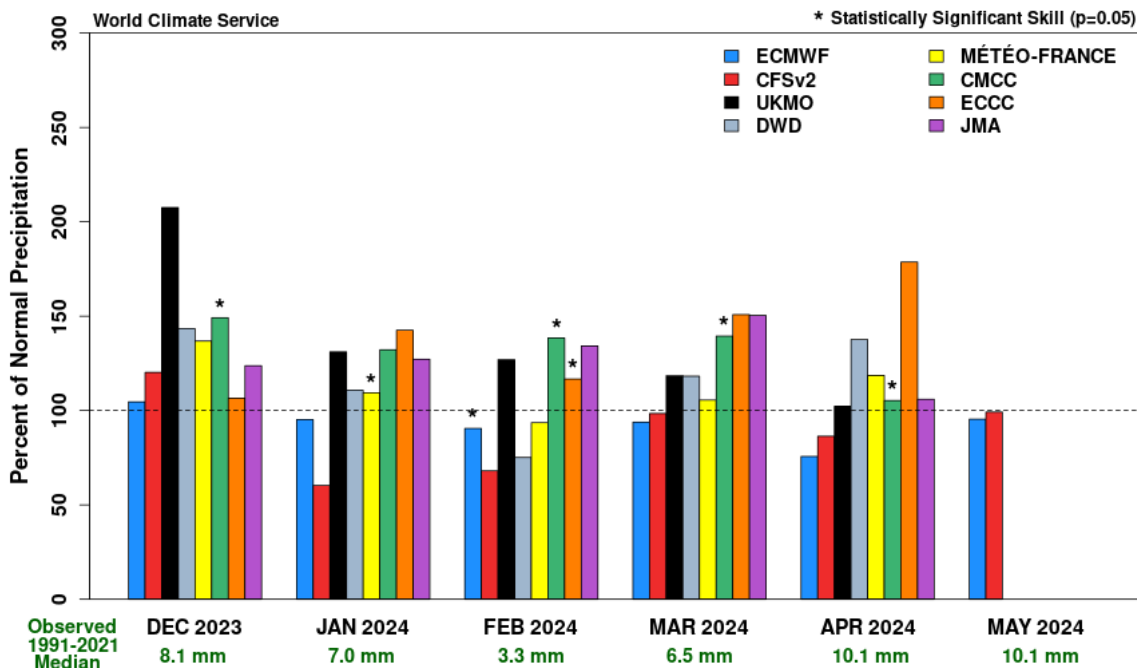


7–December 2023

Winter breeding area (Red Sea and Gulf of Aden coasts)

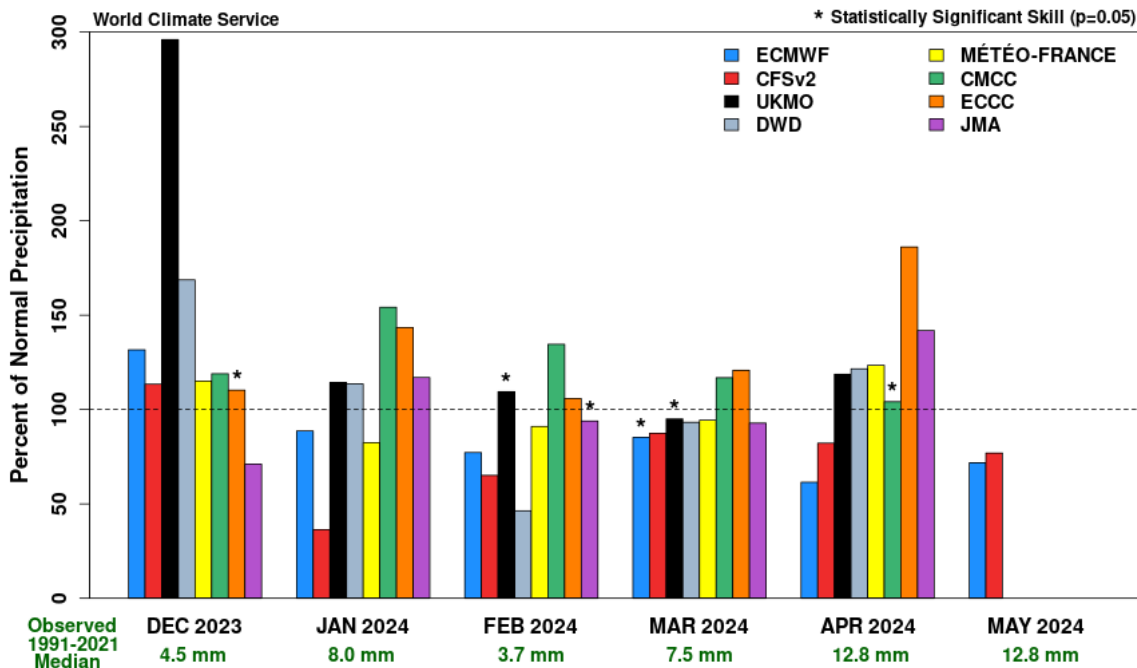


**Precipitation Forecast
Winter Breeding Region
Models Initialized November 2023**



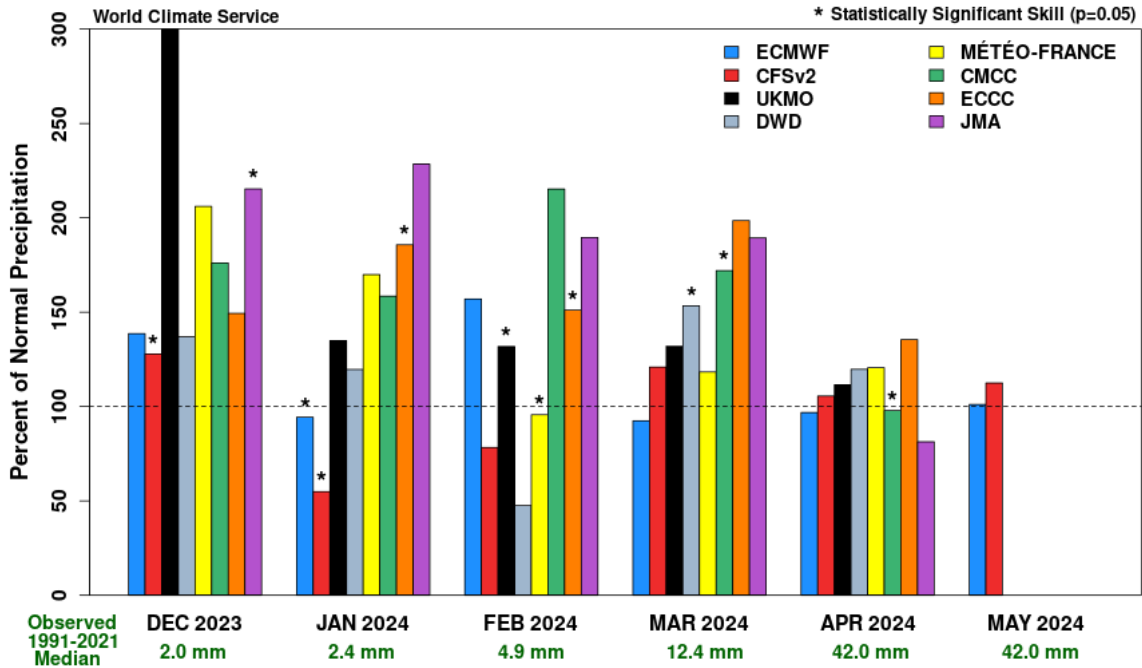
Winter breeding, December–March/April (Red Sea / Gulf of Aden)

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



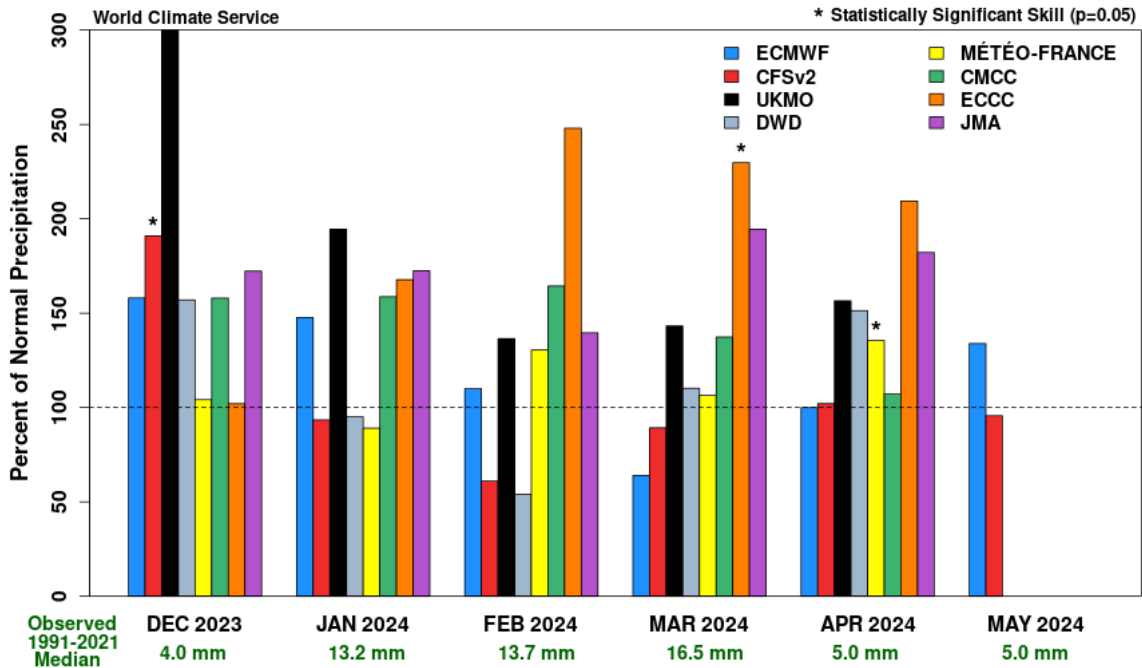
Spring breeding, March–May (Arabian Peninsula)

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



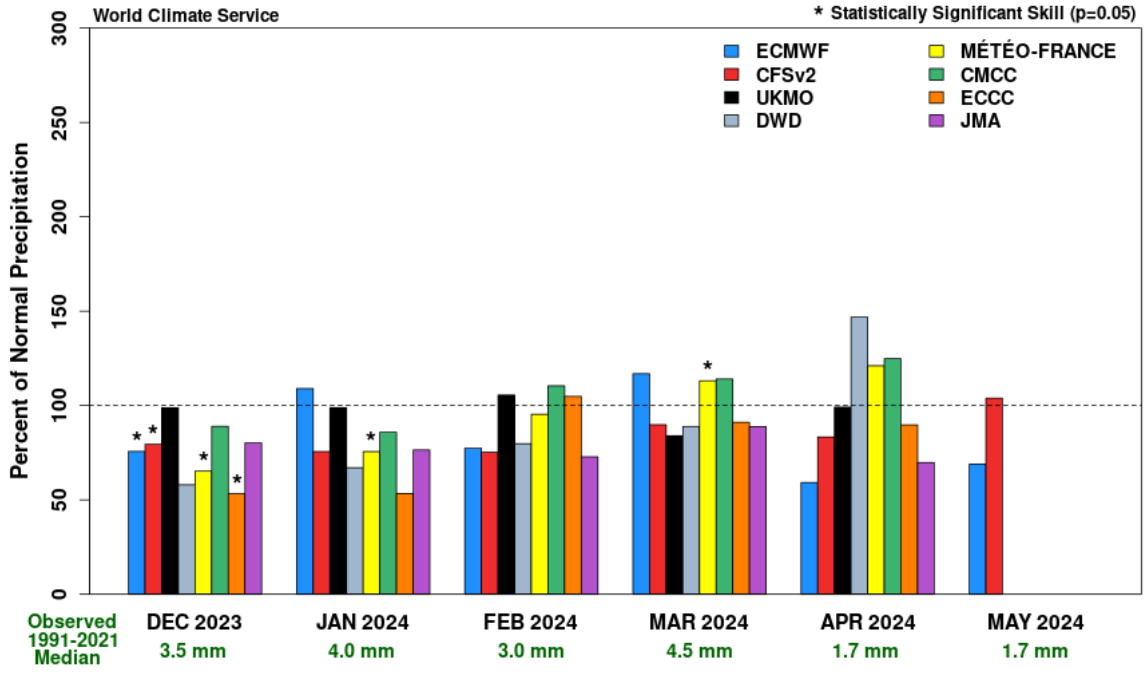
Spring breeding, March–May (Horn of Africa)

**Precipitation Forecast
Spring Breeding Region (Eastern)
Models Initialized November 2023**



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

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



Spring breeding, March–May (NW Africa)