



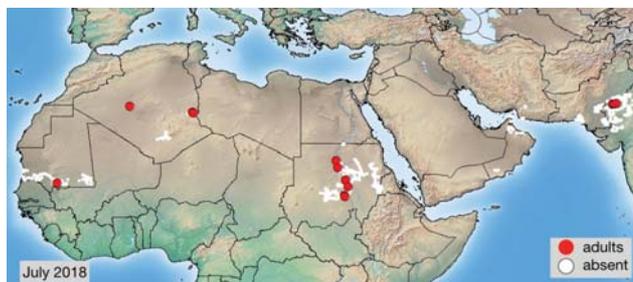
# Desert Locust Bulletin

## General situation during July 2018 Forecast until mid-September 2018

### WESTERN REGION: CALM

**SITUATION.** Isolated adults were present in central and eastern **Algeria**.

**FORECAST.** Small-scale breeding will occur in the northern Sahel of **Mauritania, Mali, Niger, Chad** and southern **Algeria** with very low numbers of hoppers appearing. No significant developments are likely.



### The Desert Locust situation continued to remain calm during July

Only isolated solitary adults were reported during July in central and eastern Algeria, southern Mauritania, Sudan and along the Indo-Pakistan border. Good rains fell during July in the summer breeding areas of the northern Sahel from Mauritania to western Eritrea and along both sides of the Indo-Pakistan border, causing ecological conditions to become favourable for breeding. However, current locust numbers are extremely low due to very poor breeding during the past spring and winter. It will take several months of good rains and at least two generations of breeding before locust numbers are likely to increase significantly. Nevertheless, regular surveys should be undertaken in all summer breeding areas to closely monitor the evolution of the situation. In the Central Region, there remains a possibility of breeding in southern and eastern Yemen, southern Oman, and eastern Saudi Arabia where unusually heavy rains from Cyclone Mekunu fell in May. There is a slight possibility of breeding in northern Somalia and eastern Ethiopia in areas that received heavy rains from Cyclone Sagar in May. Regular monitoring should be maintained in all areas for the next few months.

### CENTRAL REGION: CALM

**SITUATION.** Isolated adults were present in the interior of **Sudan**.

**FORECAST.** Breeding may occur in parts of southern **Yemen** and **Oman**, and the Empty Quarter in eastern **Saudi Arabia**, where heavy rains fell from Cyclone Mekunu. Small-scale breeding will occur in the interior of **Sudan** and western **Eritrea** with very low numbers of hoppers appearing. No significant developments are likely.

### EASTERN REGION: CALM

**SITUATION.** Isolated adults were present along the Indo-Pakistan border in Cholistan, **Pakistan**.

**FORECAST.** Small-scale breeding will occur along both sides of the **Indo-Pakistan border** with low numbers of hoppers appearing. No significant developments are likely.

The FAO Desert Locust Bulletin is issued every month by the Desert Locust Information Service (DLIS) at FAO HQ in Rome, Italy. DLIS continuously monitors the global Desert Locust situation, weather and ecology to provide early warning based on survey and control results from affected countries, combined with remote sensing, historical data and models. The bulletin is supplemented by Alerts and Updates during periods of increased Desert Locust activity. Products are distributed by e-mail and Internet.

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## Weather & Ecological Conditions in July 2018

**Ecological conditions became favourable in all summer breeding areas as a result of good rains during July.**

### WESTERN REGION

The Inter-Tropical Convergence Zone (ITCZ) continued its seasonal movement northward in West Africa during July. Its position was often 150–200 km further north than usual for this time of year. By the end of the month, the ITCZ had reached Ouadane in Mauritania, the Algerian border in northern Mali, southern Algeria, Bilma in northeast Niger, and Faya in northern Chad. As a result, good rains fell throughout all summer breeding areas in the northern Sahel between Mauritania and Chad, including southern Algeria where heavy downpours on 30 July caused local flooding in In Guezzam. Consequently, ecological conditions became favourable for breeding throughout most of these areas. In Northwest Africa, dry and extremely warm conditions prevailed. The highest reliable temperature ever recorded in Algeria, 51°C, occurred at Ouargla on 5 July.

### CENTRAL REGION

The Inter-Tropical Convergence Zone (ITCZ) continued its seasonal movement northward over the interior of Sudan during July. During the first decade and third decades, it was nearly 100–300 km further north than usual. By the end of the month, the ITCZ had reached Dongola and Wadi Diib in northern Sudan. As a result, good rains fell in North Darfur as far north as Mellit, in North Kordofan to Sodiri, and in Kassala State. Consequently, annual vegetation became green over large areas of North Kordofan and Darfur, and breeding conditions improved. In Eritrea, light to moderate rains fell in the western lowlands, causing breeding conditions to become favourable near Teseney. In Yemen, light to moderate rains fell for a second consecutive month along the edge of Ramlat Sabatyn from Nisab to Wadi Hadhramaut. Light to moderate rains fell during the last week of July along both sides of the Red Sea in southeast Egypt, along parts of the Sudanese coast, in Eritrea and from Lith, Saudi Arabia to Zabid, Yemen. It is unusual for rain to fall along the coast during the summer. In Oman, annual vegetation became green along parts of the plains in the Dhofar interior of the south as a result of Cyclone Mekunu in May. Dry conditions prevailed in the Horn of Africa.

### EASTERN REGION

Although the southwest monsoon had reached the Indo-Pakistan border area some two weeks earlier than normal this year, very little rain fell during the first decade along both sides of the border. However, rainfall improved substantially during the second decade when widespread

moderate to heavy showers fell throughout Rajasthan and Gujarat in India as well as in adjacent areas of Tharparkar, Nara and Cholistan deserts in Pakistan and in the Lasbela area west of Karachi. Higher than normal rains fell in Rajasthan near Bikaner and along the Pakistani border west of the Indira Gandhi Canal. As a result of the good rains, ecological conditions became favourable for breeding in most of these areas. Dry conditions prevailed elsewhere in the region.



### Area Treated

No control operations were reported during July.



### Desert Locust Situation and Forecast

### WESTERN REGION

#### MAURITANIA

• SITUATION

During the last week of July, isolated immature solitarious adults were seen at one location in Assaba southeast of Kiffa (1638N/1124W). No locusts were seen during surveys carried out in the southern regions of Trarza, Brakna, Assaba and the two Hodhs.

• FORECAST

*Small-scale breeding is likely to occur in areas of recent rainfall in the south and southeast, causing locust numbers to increase slightly.*

#### MALI

• SITUATION

No surveys were carried out and no locusts were reported in July.

• FORECAST

*Small-scale breeding is likely to occur in areas of recent rainfall in the Adrar des Iforas and Tamesna, causing locust numbers to increase slightly.*

#### NIGER

• SITUATION

No locust activity was reported during July.

• FORECAST

*Small-scale breeding is likely to occur in areas of recent rainfall in the Tahoua area and on the Tamesna Plains, causing locust numbers to increase slightly.*

## CHAD

### • SITUATION

No surveys were carried out and no locusts were reported in July.

### • FORECAST

*Low numbers of adults will appear in central and eastern areas and breed on a small scale in areas of recent rainfall, giving rise to hatching and low numbers of hoppers during the forecast period.*

## SENEGAL

### • SITUATION

No locust activity was reported during July.

### • FORECAST

*No significant developments are likely.*

## BENIN, BURKINA FASO, CAMEROON, CAPE VERDE, CÔTE D'IVOIRE, GAMBIA, GHANA, GUINEA, GUINEA BISSAU, LIBERIA, NIGERIA, SIERRA LEONE AND TOGO

### • FORECAST

*No significant developments are likely.*

## ALGERIA

### • SITUATION

During July, isolated immature solitary adults were present in the central Sahara south of Adrar (2753N/0017W) and isolated mature solitary adults were present in the east near Illizi (2630N/0825E). No locusts were seen in the south near Tamanrasset (2250N/0528E).

### • FORECAST

*Low numbers of adults may remain near irrigated perimeters in the central Sahara. Small-scale breeding is likely to occur in areas of recent rainfall of the southern Sahara near the borders of Mali and Niger.*

## MOROCCO

### • SITUATION

No locust activity was reported during July.

### • FORECAST

*No significant developments are likely.*

## LIBYA

### • SITUATION

No locust activity was reported during July.

### • FORECAST

*No significant developments are likely.*

## TUNISIA

### • SITUATION

No locust activity was reported during July.

### • FORECAST

*No significant developments are likely.*

## CENTRAL REGION

### SUDAN

#### • SITUATION

During July, isolated mature solitary adults were seen in Northern State near Dongola (1910N/3027E) in Nile Valley and northwest of Khartoum (1533N/3235E). Isolated immature solitary adults were seen in White Nile State between Ed Dueim (1400N/3220E) and Umm Saiyala (1426N/3112E). No locusts were seen during extensive surveys in Northern, River Nile, Kassala, Red Sea, Khartoum, White Nile and North Kordofan states.

#### • FORECAST

*Small-scale breeding is likely to occur in areas of recent rainfall, causing locust numbers to increase slightly in North Darfur, North Kordofan, White Nile, Khartoum, River Nile and Kassala states.*

### ERITREA

#### • SITUATION

During July, no locusts were seen during surveys carried out in the western lowlands to the north and south of Teseney (1506N/3639E).

#### • FORECAST

*Small-scale breeding is likely to occur in areas of recent rainfall in the western lowlands, causing locust numbers to increase slightly.*

### ETHIOPIA

#### • SITUATION

No reports were received in July.

#### • FORECAST

*Small-scale breeding could occur in areas that received rains from Cyclone Sagar in the railway area of Dire Dawa and perhaps on the plateau near Jijiga.*

### DJIBOUTI

#### • SITUATION

No surveys were carried out and no locusts were reported in July.

#### • FORECAST

*No significant developments are likely.*

### SOMALIA

#### • SITUATION

No reports were received in July.

#### • FORECAST

*Small-scale breeding could occur in areas that received heavy rains associated with Cyclone Sagar.*

### EGYPT

#### • SITUATION

No surveys were carried out and no locusts were reported in July.

#### • FORECAST

*No significant developments are likely.*

## SAUDI ARABIA

### • SITUATION

No surveys were carried out and no locusts were reported in July.

### • FORECAST

*Scattered adults may appear and breed in Yemen and Oman border areas of the Empty Quarter (Umm Al Melh to Thabhtoten) that received rains from Cyclone Mekunu.*

## YEMEN

### • SITUATION

The situation remained unclear as it was not possible to undertake surveys during July because of continued insecurity.

### • FORECAST

*Small-scale breeding may occur in areas along the southern coast that received heavy rains from cyclones Sagar and Mekunu. Breeding could also take place in the interior along the edge of the Ramlat Sabatyn, extending to Wadi Hadhramaut and the Thamud plateau. Small-scale breeding is likely in recent areas of rainfall along the Red Sea coastal plains.*

## OMAN

### • SITUATION

During July, no locusts were seen during surveys carried out on the Musandam Peninsula, along the Batinah coast near Sohar (2421N/5644E) and Jamma (2333N/5733E), in the northern interior near Buraimi (2415N/5547E) and Iabri (2314N/5630E), and in the southern province of Dhofar north of Thumrait (1736N/5401E).

### • FORECAST

*Low numbers of adults may appear and breed in coastal and interior areas of Dhofar and Al Wusta that received heavy rains from Cyclone Mekunu.*

## BAHRAIN, IRAQ, ISRAEL, JORDAN, KENYA, KUWAIT, LEBANON, PALESTINE, QATAR, SOUTH SUDAN, SYRIA, TANZANIA, TURKEY, UAE AND UGANDA

### • FORECAST

*No significant developments are likely.*

## EASTERN REGION

### IRAN

#### • SITUATION

During July, no locusts were seen on the southeast coast near Jask (2540N/5746E) and in the Jaz Murian Basin of the interior between Ghale Ganj (2731N/5752E) and Sowlan (2710N/5833E).

#### • FORECAST

*No significant developments are likely.*

### PAKISTAN

#### • SITUATION

During July, isolated mature solitary adults were seen

along the Indian border east of Islamgarh (2751N/7048E) in Cholistan.

#### • FORECAST

*Small-scale breeding is likely to occur in areas of recent rainfall in Cholistan, Nara and Tharparkar deserts, causing locust numbers to increase slightly.*

## INDIA

#### • SITUATION

No locusts were seen during surveys carried out in Rajasthan and Gujarat in July.

#### • FORECAST

*Small-scale breeding is likely to occur in areas of recent rainfall in Rajasthan and Gujarat, causing locust numbers to increase slightly.*

## AFGHANISTAN

#### • SITUATION

No reports received.

#### • FORECAST

*No significant developments are likely.*



## Announcements

## Locust warning levels

A colour-coded scheme indicates the seriousness of the current Desert Locust situation: **green** for *calm*, **yellow** for *caution*, **orange** for *threat* and **red** for *danger*. The scheme is applied to the Locust Watch web page and to the monthly bulletins. The levels indicate the perceived risk or threat of current Desert Locust infestations to crops and appropriate actions are suggested for each level.

## Locust reporting

**Calm (green).** Countries should report at least once/month and send RAMSES data with a brief interpretation.

**Caution (yellow), threat (orange) and danger (red).**

During locust outbreaks, upsurges and plagues, RAMSES output files with a brief interpretation should be sent at least twice/week within 48 hours of the latest survey.

**Bulletins.** Affected countries are encouraged to prepare decadal and monthly bulletins summarizing the situation.

**Reporting.** All information should be sent by e-mail to the FAO/ECLD Desert Locust Information Service (eclod@fao.org). Reports received by the first two days of the new month will be included in the FAO Desert Locust Bulletin for the current month; otherwise, they will not appear until the following month. Reports should be sent even if no locusts were found or if no surveys were conducted.

## Calendar

The following activities are scheduled or planned:

- **CLCPRO.** Workshop on the use of score cards to standardize the implementation of the list of environmental requirements, Dakar, Senegal (17–19 September)
- **CRC.** Simulation of Desert Locust contingency planning, Hurghada, Egypt (30 September – 4 October)
- **CLCPRO.** Training of trainers on survey techniques, Aioun El Atrous, Mauritania (15–22 October)
- **CRC.** Regional workshop on use of *Metarhizium acridum* in Desert Locust control, Hurghada, Egypt (7–9 October)
- **DLCC.** 41<sup>st</sup> session, Tunis, Tunisia (22–25 October) (tbc)



## Glossary of terms

The following special terms are used in the Desert Locust Bulletin when reporting locusts:

### Non-gregarious adults and hoppers

#### Isolated (few)

- very few present and no mutual reaction occurring
- 0–1 adult/400 m foot transect (or less than 25/ha)

#### Scattered (some, low numbers)

- enough present for mutual reaction to be possible but no ground or basking groups seen
- 1–20 adults/400 m foot transect (or 25–500/ha)

#### Group

- forming ground or basking groups
- 20+ adults/400 m foot transect (or 500+/ha)

### Adult swarm and hopper band sizes

#### Very small

- swarm: less than 1 km<sup>2</sup>
- band: 1–25 m<sup>2</sup>

#### Small

- swarm: 1–10 km<sup>2</sup>
- band: 25–2,500 m<sup>2</sup>

#### Medium

- swarm: 10–100 km<sup>2</sup>
- band: 2,500 m<sup>2</sup> – 10 ha

#### Large

- swarm: 100–500 km<sup>2</sup>
- band: 10–50 ha

#### Very large

- swarm: 500+ km<sup>2</sup>
- band: 50+ ha

### Rainfall

#### Light

- 1–20 mm

#### Moderate

- 21–50 mm

#### Heavy

- more than 50 mm

### Summer rains and breeding areas

- July–September/October
- Sahel of West Africa, Sudan, western Eritrea; Indo-Pakistan border

### Winter rains and breeding areas

- October–January/February
- Red Sea and Gulf of Aden coasts; northwest Mauritania, Western Sahara

### Spring rains and breeding areas

- February–June/July
- Northwest Africa, Arabian Peninsula interior, Somali plateau, Iran/Pakistan border

## Other reporting terms

### Breeding

- The process of reproduction from copulation to fledging

### Recession

- Period without widespread and heavy infestations by swarms

### Remission

- Period of deep recession marked by the complete absence of gregarious populations

### Outbreak

- A marked increase in locust numbers due to concentration, multiplication and gregarisation which, unless checked, can lead to the formation of hopper bands and swarms

### Upsurge

- A period following a recession marked initially by a very large increase in locust numbers and contemporaneous outbreaks followed by the production of two or more successive seasons of transient-to-gregarious breeding in complimentary seasonal breeding areas in the same or neighbouring Desert Locust regions

### Plague

- A period of one or more years of widespread and heavy infestations, the majority of which occur as bands or swarms. A major plague exists when two or more regions are affected simultaneously

### Decline

- A period characterised by breeding failure and/or successful control leading to the dissociation of swarming populations and the onset of recessions; can be regional or major

## Warning levels

### Green

- *Calm.* No threat to crops; maintain regular surveys and monitoring

### Yellow

- *Caution.* Potential threat to crops; increased vigilance is required; control operations may be needed

### Orange

- *Threat.* Threat to crops; survey and control operations must be undertaken

## Red

- *Danger*. Significant threat to crops; intensive survey and control operations must be undertaken

## Regions

### Western

- Locust-affected countries in West and North-West Africa: Algeria, Chad, Libya, Mali, Mauritania, Morocco, Niger, Senegal, Tunisia; during plagues only: Benin, Burkina Faso, Cameroon, Cape Verde, Côte d'Ivoire, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Nigeria, Sierra Leone and Togo

## Central

- Locust-affected countries along the Red Sea: Djibouti, Egypt, Eritrea, Ethiopia, Oman, Saudi Arabia, Somalia, Sudan, Yemen; during plagues only: Bahrain, Iraq, Israel, Jordan, Kenya, Kuwait, Lebanon, Palestine, Qatar, South Sudan, Syria, Tanzania, Turkey, UAE and Uganda

### Eastern

- Locust-affected countries in South-West Asia: Afghanistan, India, Iran and Pakistan.



## Useful tools and resources

**FAO Locust Watch.** Information, maps, activities, publications, archives, FAQs, links  
<http://www.fao.org/ag/locusts>

**FAO Desert Locust regional commissions.** Western Region (CLCPRO), Central Region (CRC), South-West Asia (SWAC)  
<http://www.fao.org/ag/locusts>

**IRI RFE.** Rainfall estimates every day, decade and month  
[http://iridl.ideo.columbia.edu/maproom/.Food\\_Security/.Locusts/index.html](http://iridl.ideo.columbia.edu/maproom/.Food_Security/.Locusts/index.html)

**IRI Greenness maps.** Dynamic maps of green vegetation evolution every decade  
[http://iridl.ideo.columbia.edu/maproom/Food\\_Security/Locusts/Regional/greenness.html](http://iridl.ideo.columbia.edu/maproom/Food_Security/Locusts/Regional/greenness.html)

**NASA WORLDVIEW.** Satellite imagery in real time  
<https://worldview.earthdata.nasa.gov>

**Windy.** Real time rainfall, winds and temperatures for locust migration  
<http://www.windy.com>

**eLocust3 training videos.** A set of 15 introductory training videos are available on YouTube  
<https://www.youtube.com/playlist?list=PLf7Fc-oGpFHEdv1jAPaF02TCfpcnYoFQT>

**RAMSESV4 training videos.** A set of basic training videos are available on YouTube  
<https://www.youtube.com/playlist?list=PLf7Fc-oGpFHGyzXqE22j8-mPDhhGNq5So>

**RAMSESV4 and eLocust3.** Installer, updates, videos, inventory and support  
<https://sites.google.com/site/rv4elocust3updates/home>

**FAOLocust Twitter.** The very latest updates posted as tweets  
<http://www.twitter.com/faolocust>

**FAOLocust Facebook.** Information exchange using social media  
<http://www.facebook.com/faolocust>

**FAOLocust Slideshare.** Locust presentations and photos  
<http://www.slideshare.net/faolocust>

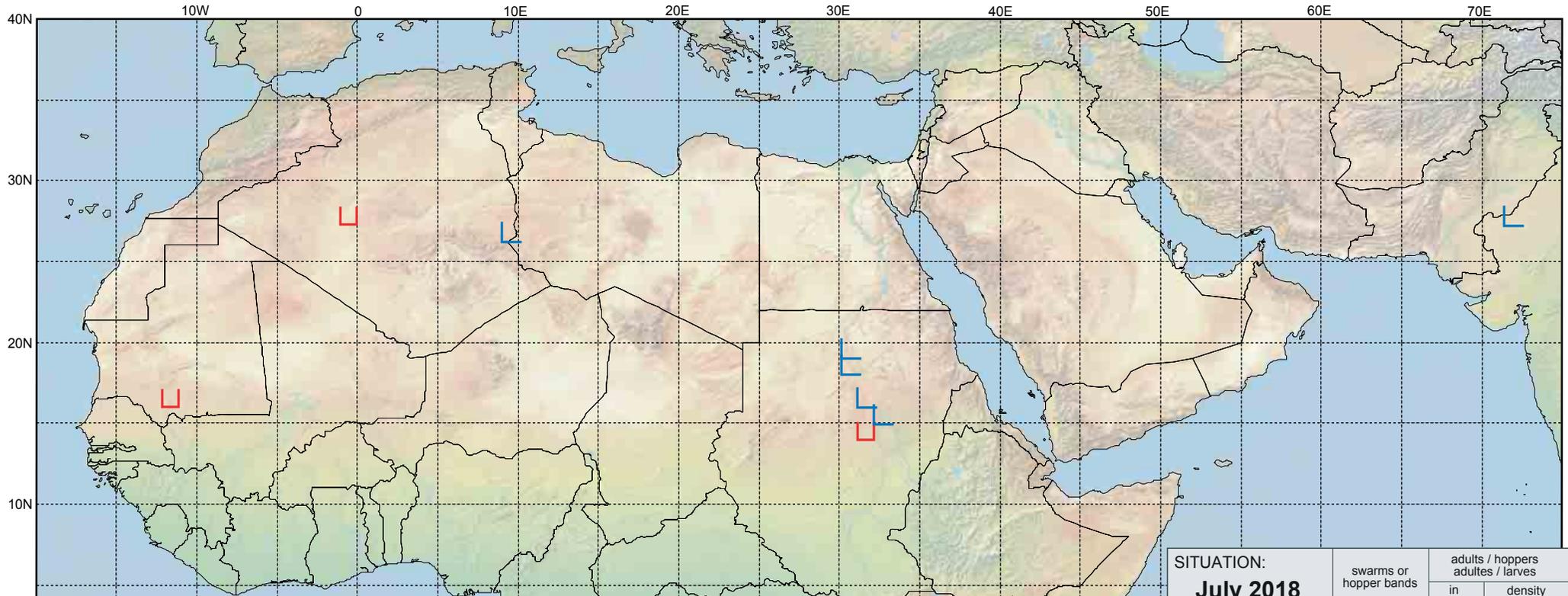
**eLERT.** Online database of resources and technical specifications for locust emergencies  
<http://sites.google.com/site/elertsite>



# Desert Locust Summary

## Criquet pèlerin - Situation résumée

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FORECAST TO: PREVISION AU:	<b>15.09.18</b>	LIKELY PROBABLE	POSSIBLE POSSIBLE
favourable breeding conditions conditions favorables à la reproduction			
major swarm(s) essaim(s) important(s)			
minor swarm(s) essaim(s) limité(s)			
non swarming adults adultes non essaimant			

SITUATION: <b>July 2018</b> <b>juillet 2018</b>	swarms or hopper bands essaims ou bandes larvaires	adults / hoppers adultes / larves	
		in groups en groupes	density low/unknown densité faible/inconnue
immature adults adultes immatures			
mature or partly mature adults adultes matures ou partiellement matures			
adults, maturity unknown adultes, maturité inconnue			
egg laying or eggs pontes ou œufs			
hoppers larves			
hoppers & adults (combined symbol example) larves et adultes (exemple symboles combinés)			