



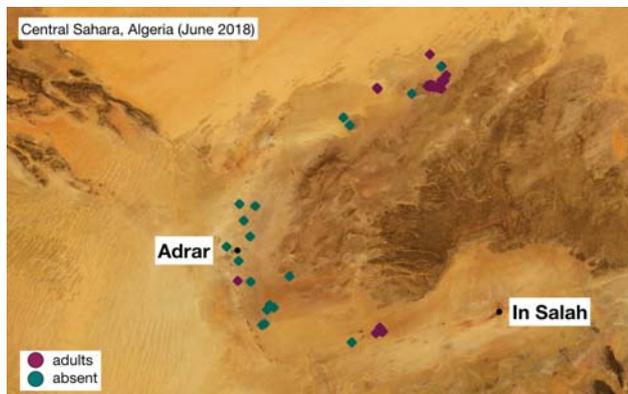
# Desert Locust Bulletin

## General situation during June 2018 Forecast until mid-August 2018

### WESTERN REGION: CALM

**SITUATION.** Small-scale breeding continued in central **Algeria** and 581 ha were treated.

**FORECAST.** Small-scale breeding will commence in areas that receive seasonal rains in the northern Sahel of **Mauritania, Mali, Niger, Chad** and southern **Algeria** with low numbers of hoppers appearing. No significant developments are likely.



### CENTRAL REGION: CALM

**SITUATION.** No locusts were reported.

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

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

Local breeding continued on a small scale in central Algeria where ground teams treated 581 ha of solitary hoppers and adults near irrigated farms in June. In southwest Asia, isolated adults appeared in the summer breeding areas near the Indian border in Cholistan, Pakistan. No locusts were reported in other countries. During the forecast period, small-scale breeding will commence in the summer breeding areas of the northern Sahel between Mauritania and western Eritrea, initially in those places that have already received rainfall. As a result of very poor breeding during the past spring and winter, current locust numbers are extremely low throughout the recession area. A significant increase in locust populations will not occur unless there are several months of good rains and at least two generations of breeding. Nevertheless, regular surveys should be undertaken in all areas in order to detect the first signs of breeding and monitor progress. In the Central Region, there remains a possibility of breeding in areas that received unusually heavy rains from cyclones Sagar and Mekunu in May, primarily in southern and eastern Yemen, southern Oman, eastern Saudi Arabia, northwest Somalia and eastern Ethiopia. Regular monitoring during the next few months is recommended.

### EASTERN REGION: CALM

**SITUATION.** Isolated adults were reported at one place in the summer breeding areas in Cholistan, **Pakistan**.

**FORECAST.** Small-scale breeding will occur in areas that receive the seasonal monsoon rains 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 June 2018

**Good rains started to fall in parts of the summer breeding areas in the northern Sahel of West Africa and Sudan. The southwest monsoon commenced at the end of the month in Rajasthan, India.**

### WESTERN REGION

The Inter-Tropical Convergence Zone (ITCZ) continued its seasonal movement northward in West Africa, reaching Tamcheppet in southern Mauritania, Kidal in northern Mali, In Abangharit in northern Niger, and nearly Fada in northeast Chad by the end of the month, at least 200 km further north than usual. During the last two decades, light rains began to fall in southern Mauritania and on the southern Tamesna Plains in Mali and Niger. Rainfall was particularly good in Chad because of the unusually northerly position of the ITCZ for both decades. As a result, ecological conditions were improving in the summer breeding areas in central and northeast Mali, Tamesna and the central pastoral areas of Niger, and in central and eastern areas of Chad. In Northwest Africa, dry conditions prevailed except for small areas of green vegetation in the Ziz and Ghris valleys south of the Atlas Mountains in Morocco.

### CENTRAL REGION

The Inter-Tropical Convergence Zone (ITCZ) continued its seasonal movement northward in the interior of Sudan from South Darfur and Kordofan and reached the summer breeding areas. During the second and third decades, its position was more than 200 km further north than usual, reaching Abu Uruq and Atbara by the end of the month. Consequently, moderate rains fell from En Nahud and El Obeid to Gedaref while light showers occurred further north to Sodiri and Khartoum. Annual vegetation began emerging in some areas. Light rain also fell near Atbara and Derudeb in the east. In western Eritrea, light rains fell in the lowlands north of Teseney. In Yemen, light to moderate rains fell during the first decade in Red Sea and Gulf of Aden coastal areas as well as in parts of the interior near Al Hazm and along the edge of Ramlat Sabatyn from Marib to Shabwah. In the Horn of Africa, light to moderate showers fell in the Harar Highlands and surrounding areas of eastern Ethiopia. As a result of Cyclone Mekunu in May, small areas of green vegetation developed in eastern portions of the Empty Quarter in Saudi Arabia along the border of Yemen and Oman, and adjacent areas of Dhofar in southern Oman. Similarly, green vegetation developed from Cyclone Sagar on the plateau in northeast Somalia, on the northwest coastal plains near Siilil and adjacent areas of eastern Ethiopia near the railway.

### EASTERN REGION

The southwest monsoon entered Rajasthan, India on 27 June, bringing light to moderate rainfall over scattered places in southern and eastern districts. Nevertheless, ecological conditions remained mainly dry and unfavourable for breeding except near Barmer. Dry conditions prevailed elsewhere in the region.



### Area Treated

Algeria 581 ha (June)



### Desert Locust Situation and Forecast

### WESTERN REGION

#### MAURITANIA

• SITUATION

No locust activity was reported during June.

• FORECAST

*Low numbers of adults will appear in the south and southeast and breed on a small scale in areas that receive rainfall.*

#### MALI

• SITUATION

No locust activity was reported during June.

• FORECAST

*Low numbers of adults will appear in the northeast and breed on a small scale in areas that receive rainfall.*

#### NIGER

• SITUATION

No locust activity was reported during June.

• FORECAST

*Low numbers of adults will appear in the Tahoua area and on the Tamesna Plains and breed on a small scale in areas that receive rainfall.*

#### CHAD

• SITUATION

No locust activity was reported during June.

• FORECAST

*Low numbers of adults will appear in central and eastern areas and breed on a small scale in areas that receive rainfall.*

## SENEGAL

### • SITUATION

No locust activity was reported during June.

### • 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 June, solitary hoppers of all instars, at densities up to 4 hoppers/m<sup>2</sup>, and immature and mature solitary adults at densities up to 700 adults/ha were seen at several places in the central Sahara near Adrar, between Timimoun (2916N/0014E) and El Golea (3034N/0252E), and west of In Salah (2712N/0229E) as a result of small-scale breeding during April and May. Ground teams treated 581 ha. No locusts were seen in the east near Illizi (2630N/0825E) or in the south near Tamanrasset (2250N/0528E).

### • FORECAST

*Low numbers of adults may remain near irrigated perimeters in the central Sahara, but as natural vegetation dries out, most of the adults will move towards the south where small-scale breeding could occur near the borders of Mali and Niger in areas that receive rainfall.*

## MOROCCO

### • SITUATION

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

### • FORECAST

*No significant developments are likely.*

## LIBYA

### • SITUATION

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

### • FORECAST

*No significant developments are likely.*

## TUNISIA

### • SITUATION

No locust activity was reported during June.

### • FORECAST

*No significant developments are likely.*

## CENTRAL REGION

### SUDAN

#### • SITUATION

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

#### • FORECAST

*Low numbers of adults will appear in parts of the summer breeding areas in North Darfur, North Kordofan, White Nile, Khartoum, River Nile and Kassala states and breed on a small scale in areas of rainfall.*

## ERITREA

### • SITUATION

No locusts were seen during surveys on 4-10 May along the central Red Sea coastal plains between Sheib (1551N/3903E) and the Sudanese border. No surveys were carried out and no locusts were reported in June.

### • FORECAST

*Low numbers of adults are likely to appear in the western lowlands and breed on a small-scale in areas that receive summer rains, causing locust numbers to increase slightly.*

## ETHIOPIA

### • SITUATION

No reports were received in June.

### • FORECAST

*There is a moderate risk that small-scale breeding could occur in areas that received rains from Cyclone Sagar in the railway area of Dire Dawa and on the plateau near Jijiga.*

## DJIBOUTI

### • SITUATION

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

### • FORECAST

*No significant developments are likely.*

## SOMALIA

### • SITUATION

During the first decade of June, no locusts were seen during surveys carried out on the plateau in the northeast near Garowe (0824N/4829E).

### • FORECAST

*There is a moderate risk that small-scale breeding could occur in areas that received heavy rains associated with Cyclone Sagar.*

## EGYPT

### • SITUATION

No locusts were seen during surveys carried out in June along the shore of Lake Nasser near Tushka (2247N/3126E).

### • FORECAST

*No significant developments are likely.*

## SAUDI ARABIA

### • SITUATION

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

• FORECAST

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

## YEMEN

• SITUATION

The situation remains unclear as it was not possible to undertake surveys during June 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 June, no locusts were seen during surveys carried out on the Musandam Peninsula, along the Batinah coast, near Sur (2234N/5930E), in the northern interior near Buraimi (2415N/5547E) and Nizwa (2255N/5731E) and in interior areas of the southern province of Dhofar.

• 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 June, no locusts were seen on the southeast coast near Jask (2540N/5746E).

• FORECAST

No significant developments are likely.

### PAKISTAN

• SITUATION

During June, no locusts were seen during surveys carried out near Uthal (2548N/6637E) in Baluchistan. Isolated mature solitary adults were seen at one location in the summer breeding areas in the Cholistan Desert south of Bahawalpur (2924N/7147E) near the Indian border on 25 June.

• FORECAST

Low number of adults are likely to appear in parts of the

summer breeding areas between Cholistan and Tharparkar where small-scale breeding will occur areas that receive monsoon rains.

## INDIA

• SITUATION

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

• FORECAST

Low number of adults are likely to appear in parts of the summer breeding areas of Rajasthan and Gujarat where small-scale breeding will occur in areas that receive monsoon rains.

## 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.** Regional Desert Locust Information Officer workshop, Algiers, Algeria (1–4 July)
- **CRC/SWAC.** Interregional Desert Locust Information Officer workshop, Cairo, Egypt (15–19 July)
- **CRC.** Simulation of Desert Locust contingency planning, Hurghada, Egypt (30 September – 4 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)



## 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, Sierre 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)

**IRI MODIS.** Vegetation imagery every 16 days  
[http://iridl.ideo.columbia.edu/maproom/Food\\_Security/Locusts/Regional/MODIS/index.html](http://iridl.ideo.columbia.edu/maproom/Food_Security/Locusts/Regional/MODIS/index.html)

**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>

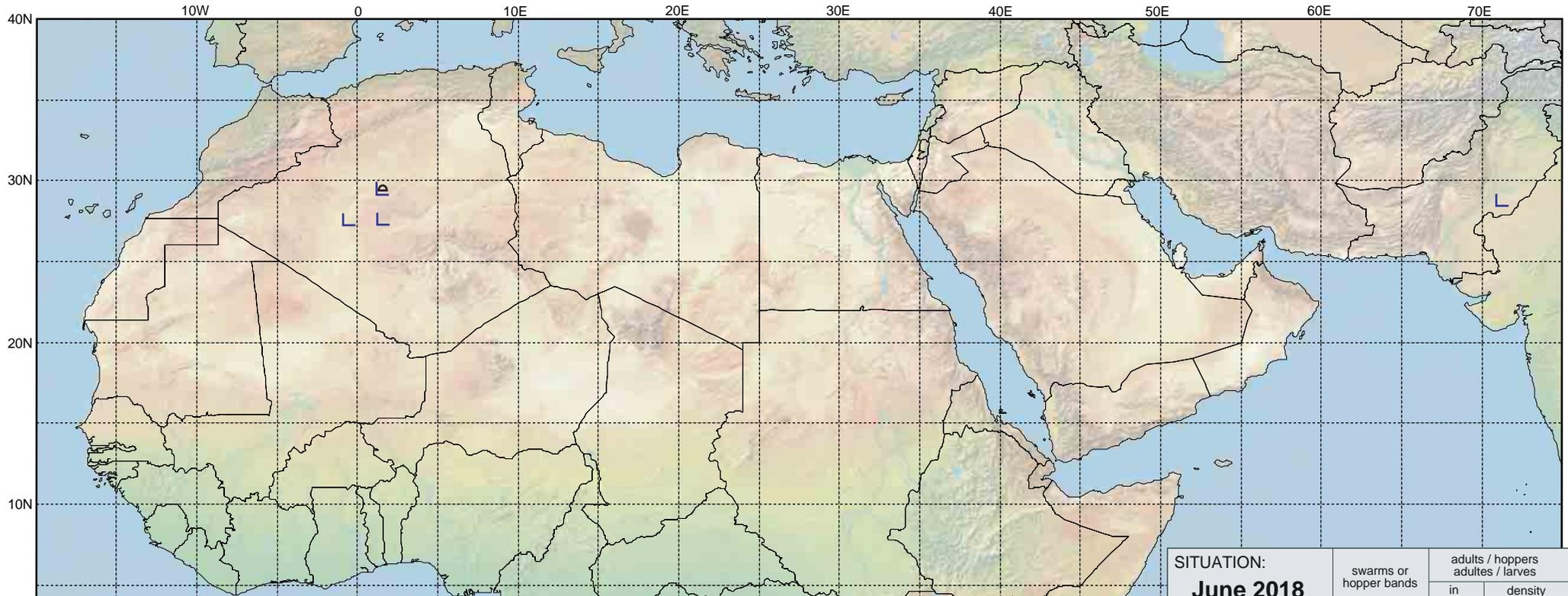
**FAOLocust Slideshare.** Locust presentations and photos  
<http://www.slideshare.net/faolocust>

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



# Desert Locust Summary

## Criquet pèlerin - Situation résumée



<b>FORECAST TO: PREVISION AU:</b> 15.08.18	<b>LIKELY PROBABLE</b>	<b>POSSIBLE POSSIBLE</b>
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		

<b>SITUATION: June 2018 juin 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)			