

## Desert Locust Bulletin

General situation during August 2022  
Forecast until mid-October 2022

### WESTERN REGION: CALM

**SITUATION.** Low numbers of hoppers and isolated adults in **Niger** and adults in **Mauritania**.

**FORECAST.** Small-scale breeding will occur in the northern Sahel of **Mauritania**, **Mali**, **Niger**, and **Chad**. Locust numbers are expected to remain low, and no significant developments are likely.

### CENTRAL REGION: CALM

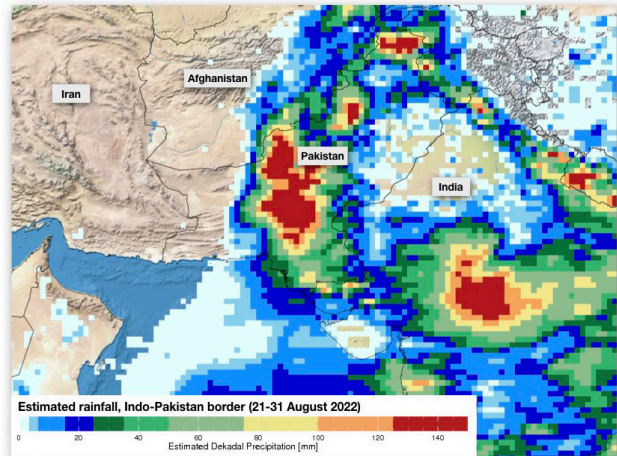
**SITUATION.** A scattered solitarious adults were seen on the Red Sea coast and in the interior **Yemen**.

**FORECAST.** Small-scale breeding may be in progress and will continue in the summer breeding areas in the interior of **Sudan**, western **Eritrea**, and in the interior and Red Sea coastal of **Yemen**. Locust numbers is expected to remain low in all breeding areas, and no significant developed are likely.

### EASTERN REGION: CALM

**SITUATION.** No locusts present.

**FORECAST.** Small-scale breeding along both sides of the Indo-Pakistan border but will decline as the monsoon retreats from the second part of September. Locust numerous are expected to remain low in all breeding areas, and no significant developed are likely.



### SUMMER RAINS CONTINUE IN MANY AREAS

The Desert Locust situation continued to remain calm during August. Only low numbers of solitarious adults were seen in a few places in southeast Mauritania, Niger and Yemen. The seasonal rains continued in August in the summer breeding areas from Mauritania to Eritrea. Heavy rain fell in southeast Pakistan and in parts of the Red Sea coastal plains in Yemen and southwest Saudi Arabia as well as a few places in Sahel. Vegetation became green from the beginning of August in most places. During the forecast period, small-scale breeding will occur in the northern Sahel from Mauritania to western Eritrea and along both sides of the Indo-Pakistan border. It be also occurred near the Red Sea coastal of Yemen. This will cause locust numbers to increase slightly but remain well below threatening levels.

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.

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## Weather & Ecological Conditions in August 2022

**Breeding conditions remained favourable in the Sahel of West Africa to Eritrea, Yemen, Pakistan and India.**

### WESTERN REGION

August was characterized by continued seasonal rains in the Sahel region. Light to moderate rainfall was in most of the summer areas from Mauritania to Chad, while heavy rainfall occurred in Inchiri and southwest Adrar in Mauritania, Adrar des Iforas in Mali, Air in Niger, and central and northeast in Chad. In Algeria, moderate rainfall was in the southern part to Mali. Light rain may have occurred in the Western Sahara in Morocco. The Intertropical Convergence Zone (ITCZ) in the second decade become north in Mauritania and Mali, south in Niger, and about the same in Chad. The ecological conditions are favorable for breeding in Mauritania, Mali, Niger and Chad, and purpose in the south of Algeria.

### CENTRAL REGION

The Intertropical Convergence Zone (ITCZ) in Sudan where about 50 km further north during the third decade of August in North Darfur and North Kordofan compared to the first two decades. Further east towards the Red Sea Hills, it was about 130 km to the south during the last decade. In general, August this year was less than normal. Light to moderate, with a few heavy, rains occurred in west and north Darfur, North Kordofan, White Nile, Kassala, and Bayuda Desert in Sudan and the western lowlands of Eritrea. Moderate and heavy rains fell on the Red Sea coastal plains of Saudi Arabia from Al Madinah to Jizan, as well as the Red Sea coastal plains, the highlands and inner breeding areas of Yemen. Moderate to heavy rains occurred in the Afar and Amhara regions of northeast Ethiopia. Consequently, vegetation started to become green in the Red Sea coastal plains of Saudi Arabia, Yemen and Eritrea as well as the inner breeding areas of Yemen and Sudan.

### EASTERN REGION

In Pakistan, heavy rains occurred in Sind include Tharparkar and Nara as well as the southeast parts of Cholistan in Punjab. In India, it was much less as only moderate rains occur in Rajasthan and Gujarat. Soil moisture and vegetation were observed at most of the survey areas.



## Area Treated

No control operations were carried out during August.



## Desert Locust Situation and Forecast

### WESTERN REGION

#### ALGERIA

##### • SITUATION

No surveys were carried out and no locusts were reported during August.

##### • FORECAST

*No significant developments are likely.*

#### CHAD

##### • SITUATION

No surveys were carried out and no locusts were reported during August.

##### • FORECAST

*Low numbers of solitary adults are likely to be in parts of the northern Sahel where they are likely to breed on a small-scale.*

#### LIBYA

##### • SITUATION

No locusts were reported during August.

##### • FORECAST

*No significant developments are likely.*

#### MALI

##### • SITUATION

No locusts were reported during August.

##### • FORECAST

*Low numbers of solitary adults are likely to be in parts of Timetrine, Adrar des Iforas and Tamesna where they are likely to breed on a small-scale.*

#### MAURITANIA

##### • SITUATION

Only a few isolated immature and mature individuals were in Tagant, Assab and Hodh Ech Chargui. The situation remained calm elsewhere.

##### • FORECAST

*Low numbers of solitary adults are likely to be present and breed on a small-scale from Trarza, Tagant, Hodh El Gharbi, and Hodh Ech Chargui as well as parts of Inchiri and southwest Adrar.*

## MOROCCO

### • SITUATION

No locusts were reported during August.

### • FORECAST

*No significant developments are likely.*

## NIGER

### • SITUATION

In Air, isolated hoppers and immature adults were seen in a few places near Timia (1809N/0846E). In further south near Zinder, isolated immature and mature adults were present near Tasker (1507N/1041E).

### • FORECAST

*Low numbers of solitary adults are likely to be in parts of Tamesna, Tasker and perhaps Air where they are likely to breed on a small-scale.*

## SENEGAL

### • SITUATION

No locusts were reported during August.

### • FORECAST

*No significant developments are likely.*

## TUNISIA

### • SITUATION

No locusts were reported during August.

### • 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.*

## CENTRAL REGION

### DJIBOUTI

#### • SITUATION

No surveys were carried out and no locusts were reported during August.

#### • FORECAST

*No significant developments are likely.*

### EGYPT

#### • SITUATION

No locusts were seen in August during the surveys on the Red Sea coastal plains near Abu-Ramad (2224N/3624E), Halaib (2213N/3638E) and Baranice (2359N/3524E), and the subcoastal areas to the west of Shalatyn (2308N/3535E).

#### • FORECAST

*No significant developments are likely.*

## ERITREA

### • SITUATION

No surveys were carried out and no locusts were reported during August.

### • FORECAST

*Low numbers of solitary adults may appear in the western lowlands and breed on a small-scale.*

## ETHIOPIA

### • SITUATION

No locusts were reported in August during the surveys carried out at the end of the month near Dire Dawa (0935N/4150E).

### • FORECAST

*No significant developments are likely.*

## KENYA

### • SITUATION

No locust reports were received in August.

### • FORECAST

*No significant developments are likely.*

## OMAN

### • SITUATION

During August, no locusts were seen in the eastern, northern interior between Sur (2234N/5930E) and Nizwa (2255N/5731E) and Buraimi (2415N/5547E) and on the Batinah coast and Musandam peninsula.

### • FORECAST

*No significant developments are likely.*

## SAUDI ARABIA

### • SITUATION

No locusts were reported in August during the surveys that were carried out on the Red Sea coastal plains from Lith (2008N/4016E) to Jizan (1656N/4233E) as well as south of Asir Mountains, Al Baha and Najran areas.

### • FORECAST

*Small scale breeding may commence by low numbers of adults that may appear on the Red Sea coastal plains between Lith and Jizan.*

## SOMALIA

### • SITUATION

No surveys were carried out and no locusts were reported during August.

### • FORECAST

*No significant developments are likely.*

## SUDAN

### • SITUATION

No locusts were seen during the surveys carried out in 1 August in North Kordofan from Umm Saiyala (1426N/3112E) to Khartoum (1533N/3235E).

### • FORECAST

*Low numbers of solitary hoppers and adults are likely to*

be present in parts of North Darfur, North Kordofan, Kassala and Bayuda Desert.

## YEMEN

### • SITUATION

During August, a Mature and Immature solitarious adults were seen in the interior near Al Hazm (1610N/4446E). No locusts were seen during intensive surveys near Sana'a (1521N/4412E) and in the interior from Al Hazm to Ataq (1435N/4649E), the Hadhramaut Valley, and the plateau north to Hat (1719N/5205E) to the Oman border.

### • FORECAST

*Small-scale breeding may be in progress in interior areas that received summer rains will cause locust numbers to increase slightly. Limited breeding may commence in the Red Sea coastal plains.*

## BAHRAIN, D.R. CONGO, IRAQ, ISRAEL, JORDAN, KUWAIT, LEBANON, PALESTINE, QATAR, SOUTH SUDAN, SYRIA, TANZANIA, TURKEY, UGANDA, AND UAE

### • FORECAST

*No significant developments are likely.*

## EASTERN REGION

### AFGHANISTAN

#### • SITUATION

No locust reports were received in August.

#### • FORECAST

*No significant developments are likely.*

### INDIA

#### • SITUATION

No locusts were seen by surveys in Rajasthan and Gujarat during August.

#### • FORECAST

*Low numbers of solitarious adults may appear in parts of Rajasthan and Gujarat, and breed on a small-scale.*

### IRAN

#### • SITUATION

No locusts were seen by surveys in the southeast and northeast during August.

#### • FORECAST

*No significant developments are likely.*

### PAKISTAN

#### • SITUATION

No locusts were reported during August.

#### • FORECAST

*Low numbers of solitarious adults are likely to be present Tharparkar, Nara and Cholistan and breed on a small-scale.*



## Announcements

### Locust warning levels

A colour-coded scheme indicates the alert level, perceived risk, or threat of current Desert Locust infestations to crops, and appropriate response:

- **Green** – calm situation (low alert); no threat to crops (*maintain regular monitoring*)
- **Yellow** – cautious situation (moderate alert); potential threat to crops (*increased vigilance, control may be needed*)
- **Orange** – serious situation (high alert); threat to crops (*survey and control must be undertaken*)
- **Red** – dangerous situation (very high alert); significant threat to crops (*intensive survey and control operations must be conducted*)

The scheme is applied to the Locust Watch web page and to the monthly bulletins and updates.

### Locust reporting

**RAMSES data.** Countries should connect to the Internet and backup the RAMSES database whenever data are added or changed; do not wait until the end of the month.

**Bulletins.** Affected countries are encouraged to prepare decadal, fortnightly, or monthly bulletins that summarize and analyze the situation, and share them with other countries.

**Reporting.** All information should be sent by e-mail to the FAO Desert Locust Information Service ([eclo@fao.org](mailto:eclo@fao.org) and [faodlislocust@gmail.com](mailto:faodlislocust@gmail.com)). Reports received by the first day of the new month will be included in the FAO Desert Locust Bulletin; 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.

### eLocust3 digital tools

In addition to the original eLocust3 tablet, FAO has three free tools for data collection in the field:

- eLocust3m – a smartphone app for survey and control data, developed with PlantVillage (download: <http://tiny.cc/eL3m>; how-to-use videos: <http://tiny.cc/eL3mVideos>)
- eLocust3g – a GPS app for emergencies, developed with Garmin (<http://tiny.cc/eLocust3g>)
- eLocust3w – an Internet form for emergencies, developed in Kobo (<http://tiny.cc/eLocust3w>)

The geo-referenced data collected by these tools feed into FAO's global early warning system and are critical for real-time monitoring, near instant analysis, and planning field operations in each country.

[<http://www.fao.org/ag/locusts/en/activ/2573/eL3suite/index.html>]

## Standard Operating Procedures (SOPs)

FAO has developed pocket-sized SOPs for use in the field on Desert Locust biology, survey, and control, including instructions on how to use eLocust3 tools, that are available in different languages.

[<http://www.fao.org/ag/locusts/en/publicat/gl/sops/index.html>]

## Community awareness

As communities have an important role to play in Desert Locust management, FAO has developed:

- Posters – six simple, easy to understand posters, providing basic messaging on pesticide containers, safety measures, pesticide exposure, farmer advice, Desert Locust, and following instructions, which can be edited (<http://www.fao.org/ag/locusts/en/publicat/2581/index.html>)
- Animation – a simple SWABO animation for all readers that clearly explains about the dangers of Desert Locust (<https://www.youtube.com/watch?v=3TOhuA-v1m4>)

## Publicly available locust data

Desert Locust survey and control data are available for research and other non-commercial purposes:

- FAO Locust Hub (<https://locust-hub-hqfao.hub.arcgis.com>)
- FAO Hand-in-Hand (<https://data.apps.fao.org>)

## Real-time evaluation report

The full report of the 2020–2021 *Desert Locust upsurge real-time evaluation* is available: <http://tiny.cc/RTE2022>

## 2022–2023 calendar

- **CLCPRO**. Joint survey using drones, Mauritania (16 September–5 October)
- **CLCPRO**. Workshop for review of the tools developed to implement the health and environment standard, Senegal, (11–14 October)
- **CLCPRO-CRC**. Interregional workshop on the applied research, Tunisia (8–11 November)
- **CRC**. Regional training course on locust management for invasion countries, Hurgada, Egypt (13–21 November)
- **CLCPRO**. 10<sup>th</sup> session, Algiers, Algeria (27 November–1 December)
- **SWAC**. Desert Locust Information Officer workshop, Tehran, Iran (5–7 December)
- **SWAC**. 33<sup>rd</sup> session, Esfahan, Iran (11–13 December)
- **DLCC**. 42<sup>nd</sup> session (March, Kenya, 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.* Low alert. No threat to crops; maintain regular surveys and monitoring

### **Yellow**

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

### **Orange**

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

### **Red**

- *Danger.* Very high alert. 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 upsurges and 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 upsurges and plagues only: Bahrain, D.R. Congo, 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/ESRI Locust Hub.** Desert Locust maps and data download, and emergency response progress  
<https://locust-hub-hqfao.hub.arcgis.com>

**FAO 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.ldeo.columbia.edu/maproom/.Food\\_Security/.Locusts/index.html](http://iridl.ldeo.columbia.edu/maproom/.Food_Security/.Locusts/index.html)

**IRI Greenness maps.** Dynamic maps of green vegetation evolution every decade  
[http://iridl.ldeo.columbia.edu/maproom/Food\\_Security/Locusts/Regional/greenness.html](http://iridl.ldeo.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 suite.** Digital tools for data collection in the field (mobile app, web form, GPS)  
<http://www.fao.org/ag/locusts/en/activ/DLIS/eL3suite/index.html>

**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>

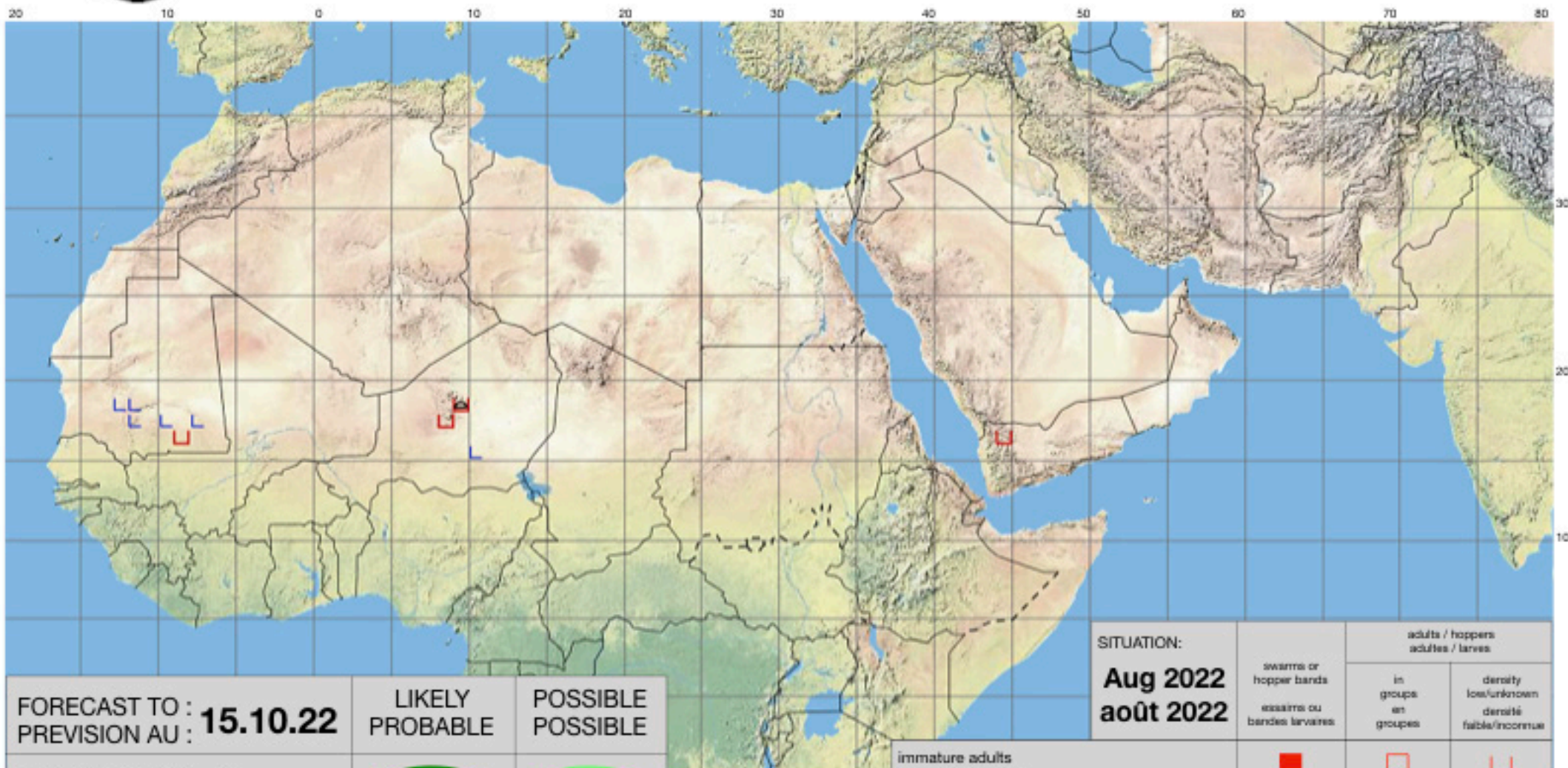
**eLERT.** Online database of resources and technical specifications for locust emergencies  
<http://sites.google.com/site/elertsite>


























# Desert Locust Summary

## Criquet pèlerin – Situation résumée

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FORECAST TO : PREVISION AU : <b>15.10.22</b>	LIKELY PROBABLE	POSSIBLE POSSIBLE
favourable breeding conditions conditions favorables à la reproduction		
major swarm(s) essaim(s) important(s)		
minor swarms(s) essaim(s) limité(s)		
non swarming adults adults non essaimant		

SITUATION: <b>Aug 2022</b> <b>août 2022</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 partially 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 example) larves et adultes (symboles combinés)	