

warning level: **CALM**

# DESERT LOCUST BULLETIN

FAO Emergency Centre for Locust Operations



No. 441



**General Situation during June 2015  
Forecast until mid-August 2015**

(3.7.2015)

The Desert Locust situation remained calm during June. Good rains and at least two generations of breeding will be required this summer before populations increase in the traditional summer breeding areas in the northern Sahel of West Africa and Sudan, and along both sides of the Indo-Pakistan border. So far, rains are late to arrive in the Sahel, except in central Niger and eastern Mali, while monsoon rains commenced some one to three weeks earlier than normal in India and Pakistan. Once the summer rains start, small-scale breeding will occur in the northern Sahel between Mauritania and western Eritrea. Therefore, regular surveys should commence shortly in all summer breeding areas but some places such as northern Mali, Darfur and the interior of Yemen will remain inaccessible due to insecurity.

**Western Region.** The situation remained calm in June. No locusts were reported in the region except for an immature adult in eastern Mali but this could not be confirmed by surveys due to prevailing insecurity. Seasonal rains started in central Niger and Tamesna, extending to eastern Mali, but were late to commence and had not begun in other summer breeding areas. During the forecast period, small-scale breeding will occur in Mali and Niger, and in Mauritania and Chad once seasonal rains commence, causing locust numbers to increase slightly. Dry conditions prevailed in Northwest Africa.

**Central Region.** The situation remained calm during June. No locusts were reported in the region and dry conditions prevailed. Although good rains associated with a tropical cyclone fell in northeast Oman, this is not likely to have a significant impact on the locust situation. So far, seasonal rains have not yet commenced in the summer breeding areas in the interior of Sudan and western Eritrea. However, they are expected to start very shortly and small-scale breeding will occur during the forecast period, causing locust numbers to increase slightly in both countries.

**Eastern Region.** No locusts were reported and the situation remained calm during June. The southwest monsoon arrived in the summer breeding areas along both sides of the Indo-Pakistan border during the last week of June, which was some one to three weeks earlier than usual. During the forecast period, small-scale breeding will cause locust numbers to increase slightly in both countries as a result of good rains so far.

The FAO Desert Locust Bulletin is issued every month by the Desert Locust Information Service, AGP Division (Rome, Italy). It is supplemented by Alerts and Updates during periods of increased Desert Locust activity. All products are distributed by e-mail and are available on the Internet.

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### Weather & Ecological Conditions in June 2015

**Hot and dry conditions prevailed in the summer breeding areas of the Sahel in West Africa and Sudan. The early arrival of the southwest monsoon brought good rains to summer breeding areas along both sides of the Indo-Pakistan border.**

In the **Western Region**, the Inter-Tropical Convergence Zone (ITCZ) moved northwards over the southern Sahel of West Africa during June, reaching the Mauritania-Mali border, northern Mali, central Niger, and south-central Chad by the end of the month. It was about 150 km south of the climatological normal position for this time of year in Mauritania but was further north than usual in Mali and western Niger. Consequently, light rains fell in central areas of Niger as far east as Tanout and north to southern Tamesna, extending to adjacent areas of eastern Mali as far north as Gao. Light showers also fell in parts of the southern and central Air Mountains in Niger. In eastern Chad, light showers fell near Abeche in the first decade while a few showers fell at the end of the month south of Nema in southeast Mauritania. As a result of the rains so far, vegetation was becoming green in parts of the western Air Mountains in Niger, and ecological conditions are expected to improve for breeding in central Niger and in parts of eastern Chad. In Northwest Africa, dry conditions prevailed.

In the **Central Region**, the Inter-Tropical Convergence Zone (ITCZ) moved northwards over the interior of Sudan during June, reaching the southern edge of the summer breeding areas. Its position was some 50-200 km south of the climatological normal position for this time of year, reaching south of Sodiri by the end of the month. Although, light rains began to fall in early June in southern portions of North Kordofan near En Nahud and El Obeid in Sudan and in parts of the western lowlands in Eritrea, ecological conditions remained dry and unfavourable for breeding. Light rains also fell in some areas along the Red Sea coastal plains of Yemen and Djibouti. Good rains associated with a weakened tropical cyclone, Ashobaa, occurred in northeast Oman on 10-13 June. Up to 150 mm of rain fell in the Sharqiya

region between the Wahiba Sands and Ras Al Hadd, with lighter rains reported in parts of Wusta and Dakhiliya regions. Consequently, breeding conditions may become favourable in some wadis of Sharqiya as floodwaters recede.

In the **Eastern Region**, pre-monsoon rains fell in the summer breeding along both sides of the Indo-Pakistan border during the first half of June. This year's southwest monsoon arrived in late June, which was about one week earlier than normal in Rajasthan, India and nearly three weeks early in Pakistan. By the end of June, nearly double the normal amount of rain had fallen in west Rajasthan.



### Area Treated

No control operations were reported during June.



### Desert Locust Situation and Forecast

( see also the summary on page 1 )

#### WESTERN REGION

##### **Mauritania**

###### • SITUATION

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

###### • FORECAST

*Scattered adults are likely to appear in the southeast and breed on a small scale as seasonal rains commence.*

##### **Mali**

###### • SITUATION

Although surveys were not carried out in June, an immature adult was reported near Gao (1616N/0003W).

###### • FORECAST

*Isolated adults are likely to be present in parts of the Adrar des Iforas, Tamesna and Timetrine. Small-scale breeding is expected to start in areas of recent rainfall in southern Tamesna and extend to northern areas as seasonal rains commence.*

##### **Niger**

###### • SITUATION

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

###### • FORECAST

*Scattered adults are expected to appear in southern Tamesna and in central areas between Tahoua and Tanout, and breed on a small scale in areas of recent rainfall.*

## **Chad**

### • SITUATION

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

### • FORECAST

*Scattered adults may appear in central and northeast areas, and breed on a small scale as seasonal rains commence.*

## **Senegal**

### • SITUATION

No reports were received 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

No locusts were seen during surveys carried out in the central Sahara near Adrar (2753N/0017W) and the southern Sahara near Tamanrasset (2250N/0528E) in June.

### • FORECAST

*Scattered adults may be present and are likely to persist near irrigated areas of the central Sahara in the Adrar area. No significant developments are likely.*

## **Morocco**

### • SITUATION

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

### • FORECAST

*No significant developments are likely.*

## **Libya**

### • SITUATION

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

### • FORECAST

*No significant developments are likely.*

## **Tunisia**

### • SITUATION

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

### • FORECAST

*No significant developments are likely.*

## **CENTRAL REGION**

### **Sudan**

#### • SITUATION

A late report indicated that no locusts were present or reported during May. Similarly, no locusts were reported in June.

#### • FORECAST

*Scattered adults are likely to present in and near cropping areas along the Nile and the Atbara rivers in River Nile and Northern States where small-scale breeding may occur. Low numbers of adults will appear in the summer breeding areas between North Darfur and Kassala, and breed on a small scale as seasonal rains commence.*

### **Eritrea**

#### • SITUATION

No locusts were seen on the northern Red Sea coast between Mehimet (1723N/3833E) and Karora (1745N/3820E) on 5-6 June.

#### • FORECAST

*Scattered adults are likely to appear in the western lowlands where small-scale breeding will occur as seasonal rains commence.*

### **Ethiopia**

#### • SITUATION

No reports were received during June.

#### • FORECAST

*No significant developments are likely.*

### **Djibouti**

#### • SITUATION

No reports were received during June.

#### • FORECAST

*No significant developments are likely.*

### **Somalia**

#### • SITUATION

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

#### • FORECAST

*No significant developments are likely.*

### **Egypt**

#### • SITUATION

During June, no locusts were seen in the Lake Nasser area near Tushka (2247N/3126E), Abu Simbel



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(2219N/3138E) and Garf Husein (2317N/3252E), and on the Red Sea coast between Shalatyn (2308N/3535E) and the Sudan border.

- **FORECAST**

*No significant developments are likely.*

### **Saudi Arabia**

- **SITUATION**

No locusts were seen on the northern Red Sea coast near Umm Lajj (2501N/3716E) and in the spring breeding areas of the interior near Hail (2731N/4141E) and Tabuk (2823N/3635E) during June.

- **FORECAST**

*No significant developments are likely.*

### **Yemen**

- **SITUATION**

A late report indicated that the locust situation remained unclear during April and May as surveys could not be carried out due to insecurity.

- **FORECAST**

*Isolated adults may be present in areas of recent rainfall on the Red Sea coast; however, additional rain will probably be required before breeding can take place.*

### **Oman**

- **SITUATION**

During June, no locusts were seen during surveys on the central Batinah coast in the north, in the northern interior near Nizwa (2255N/5731E) and Adam (2223N/5731E) and between Buraimi (2415N/5547E) and Ibri (2314N/5630E), and on the Musandam Peninsula.

- **FORECAST**

*No significant developments are likely.*

**Bahrain, Iraq, Israel, Jordan, Kenya, Kuwait, Lebanon, Palestine, Qatar, Syria, Tanzania, Turkey, UAE and Uganda**

- **FORECAST**

*No significant developments are likely.*

### **EASTERN REGION**

#### **Iran**

- **SITUATION**

No locusts were seen on the southeast coast near Jask (2540N/5746E) during June.

- **FORECAST**

*No significant developments are likely.*

### **Pakistan**

- **SITUATION**

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

- **FORECAST**

*Small-scale breeding will cause locust numbers to increase slightly in Tharparkar, Khipro and Cholistan.*

### **India**

- **SITUATION**

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

- **FORECAST**

*Small-scale breeding will cause locust numbers to increase slightly in Rajasthan and Gujarat.*

### **Afghanistan**

- **SITUATION**

No reports received.

- **FORECAST**

*No significant developments are likely.*



## **Announcements**

**Desert 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 bulletin's header. 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.** During calm (green) periods, countries should report at least once/month and send RAMSES data with a brief interpretation. During caution (yellow), threat (orange) and danger (red) periods, often associated with 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. Affected countries are also encouraged to prepare decadal bulletins summarizing the situation. All information should be sent by e-mail to the FAO/ECLC Desert Locust Information Service (eclc@fao.org). Information received by the end of the month will be included in the FAO Desert Locust Bulletin for the current month; otherwise, it will not appear until the following month. Reports should be sent even if no locusts were found or if no surveys were conducted.

**Locust tools and resources.** FAO has developed a number of tools that National locust information officers and other interested individuals can use for Desert Locust early warning and management:

- **MODIS.** Vegetation imagery every 16 days ([http://iridl.ldeo.columbia.edu/maproom/Food\\_Security/Locusts/Regional/MODIS/index.html](http://iridl.ldeo.columbia.edu/maproom/Food_Security/Locusts/Regional/MODIS/index.html))
- **MODIS.** Daily rainfall imagery in real time ([http://iridl.ldeo.columbia.edu/maproom/Food\\_Security/Locusts/index.html](http://iridl.ldeo.columbia.edu/maproom/Food_Security/Locusts/index.html))
- **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))
- **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))
- **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 updates.** Updates can be downloaded from <https://sites.google.com/site/rv4elocust3updates/home>
- **FAOLOCAST Twitter.** The very latest updates are posted on Twitter (<http://www.twitter.com/faolocust>)
- **FAOLocust Facebook.** A social means of information exchange using Facebook (<http://www.facebook.com/faolocust>)
- **Slideshare.** Locust presentations and photos available for viewing and download (<http://www.slideshare.net/faolocust>)
- **eLERT.** A dynamic and interactive online database of resources for locust emergencies (<http://sites.google.com/site/elertsite>)

**New information on Locust Watch.** Recent additions to the web site ([www.fao.org/ag/locusts](http://www.fao.org/ag/locusts)) are:

- **Desert Locust situation updates.** Archives
- **Desert Locust outbreaks in 2013-2014.** Archives – Outbreaks
- **Drones.** Activities – DLIS
- **eLocust3.** Activities – DLIS
- **RAMSESV4.** Activities – DLIS
- **DLIO-WR workshop final report.** Publications – Reports
- **CLCPRO 10<sup>th</sup> Executive Committee meeting final report.** Publications – Reports

**Training videos.** See the new links above for the eLocust3 and RAMSESV4 training videos on YouTube.

**2015 events.** The following activities are scheduled or planned:

- **Pesticide Referee Group.** Stakeholder Workshop on the Procurement and Supply of Pesticide for Locust Control, Rome (2-3 September)



## 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 of rainfall.

#### MODERATE

- 21 - 50 mm of rainfall.

#### HEAVY

- more than 50 mm of rainfall.



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### **OTHER REPORTING TERMS**

#### **BREEDING**

- the process of reproduction from copulation to fledging.

#### **SUMMER RAINS AND BREEDING**

- July - September/October

#### **WINTER RAINS AND BREEDING**

- October - January/February

#### **SPRING RAINS AND BREEDING**

- February - June/July

#### **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: Burkino Faso, Cape Verde, Gambia, Guinea and Guinea-Bissau.

#### **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, Qatar, Syria, Tanzania, Turkey, UAE and Uganda.

#### **EASTERN**

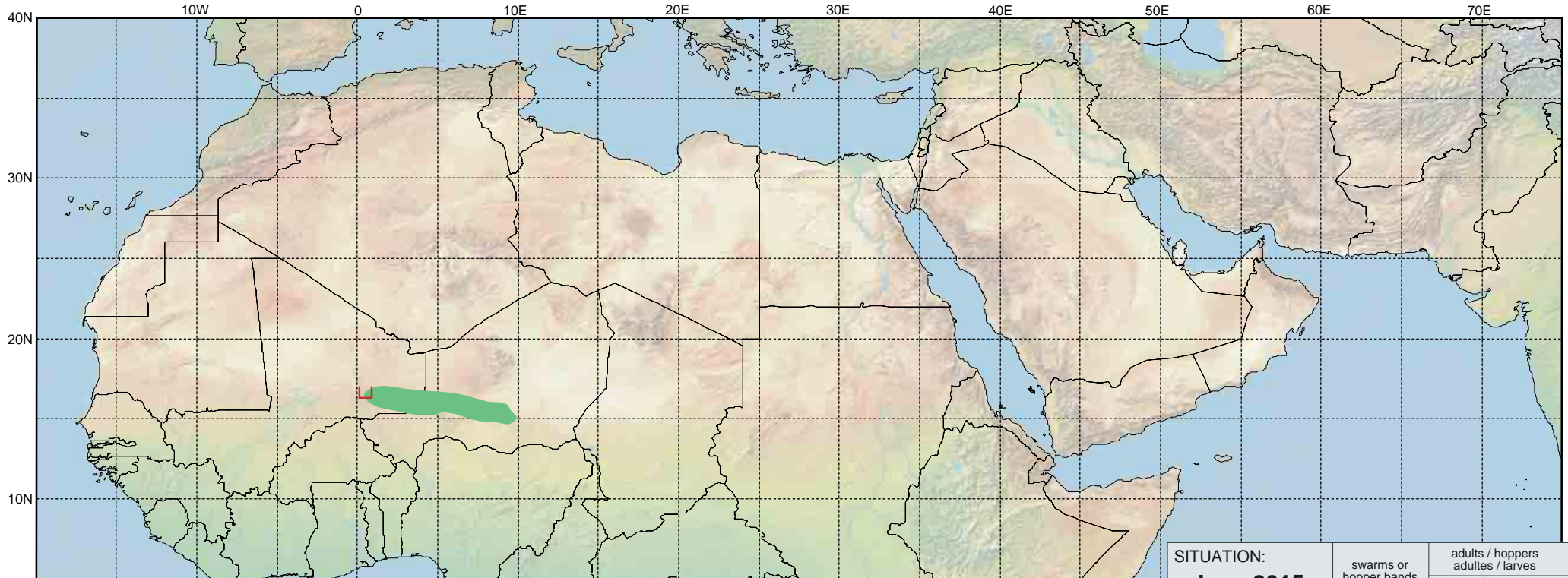
- locust-affected countries in South-West Asia: Afghanistan, India, Iran and Pakistan.



# Desert Locust Summary

## Criquet pèlerin - Situation résumée

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FORECAST TO: PREVISION AU:	<b>15.08.15</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>June 2015</b> <b>juin 2015</b>	swarms or hopper bands	adults / hoppers adultes / larves	
	essaims ou bandes larvaires	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)			