



warning level: **CAUTION**

# DESERT LOCUST BULLETIN

FAO Emergency Centre for Locust Operations



No. 431



**General Situation during August 2014  
Forecast until mid-October 2014**

(2.9.2014)

The Desert Locust situation remained calm during August. Although only isolated adults were reported in the Sahel of West Africa and Sudan, there is potential for widespread breeding to occur that could cause locust numbers to increase substantially. Good rains fell throughout the area and much further north than usual. If vegetation starts to dry out in October, locusts could concentrate and form numerous groups in those areas that remain green. All countries should remain extremely vigilant. Elsewhere, good rains fell on the Red Sea coast of Yemen where small-scale breeding is expected. Summer breeding may end early along the Indo-Pakistan border where only low numbers of adults are present and the monsoon weakened after mid-August.

**Western Region.** The situation remained calm in August. Good rains fell unusually far north in the Sahel of West Africa, giving rise to favourable breeding conditions over a widespread area from western Mauritania to northeast Chad. Low numbers of adults were present in **Mauritania, Niger** and **Chad**, and almost certainly in northern **Mali** but surveys could not confirm this due to persistent insecurity. During the forecast period, breeding is expected to occur on a small but widespread scale, causing locust numbers to increase. If vegetation starts to dry out in October,

locusts could concentrate and form numerous groups in many areas. No locusts were reported in Northwest Africa.

**Central Region.** The situation remained calm in August. Good rains fell unusually far north in Sudan and gave rise to favourable breeding conditions over a widespread area, extending from Chad to western Eritrea. Low numbers of adults were present in **Sudan** and small-scale breeding was probably underway but difficult to detect. A few swarms continued to lay eggs in a small area of northeast **Ethiopia** and control teams treated 313 ha of hopper bands. In the absence of surveys, the situation remained unclear in **Yemen** where there were unconfirmed reports of adults on the Red Sea coast and swarms in the southern highlands. During the forecast period, widespread small-scale breeding is expected to occur in Sudan, causing locust numbers to increase with the potential to form numerous groups in about October when vegetation starts to dry out. Limited breeding is likely in western **Eritrea** and on the Red Sea coast in Yemen.

**Eastern Region.** The situation remained calm in August with only low numbers of adults present along both sides of the **Indo-Pakistan** border. Small-scale breeding was probably in progress in a few areas but is expected to be limited due to poor monsoon rains. No significant developments are likely.

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 August 2014

**Unusually good and widespread rains fell in the summer breeding areas of the Sahel in West Africa and Sudan as well as further north, giving rise to good breeding conditions. Good rains also fell on the Red Sea coast in Yemen. Monsoon rains declined at mid-month along the Indo-Pakistan border.**

In the **Western Region**, the Inter-Tropical Convergence Zone (ITCZ) continued its seasonal movement northwards over the Sahel in West Africa during August. By the third decade of the month, it had reached Akjoujt, Mauritania, 100 km north of Bir Bou Mokhtar and In Guezzam in southern Algeria, and north of Fada in northeast Chad. Its position was some 1.5 degrees further north than usual. As a result, unusually good rains fell throughout southern and central Mauritania, northern Mali and Niger, and central and northeast Chad. Rains reached as far north as Tibesti and the Mourdi Depression in northern Chad and light rains fell in parts of the Central and Southern Sahara of Algeria. Compared to August 2013, this month's rainfall was better distributed in the Sahel and cumulative totals exceeding 25 mm or more, the amount necessary for locust breeding, occurred some 100-400 km further north. Consequently, ecological conditions were favourable or became favourable over a large, widespread area of the northern Sahel. In Northwest Africa, ecological conditions remained favourable for locust survival on a limited scale in the Ziz-Ghris Valley south of the Atlas Mountains.

In the **Central Region**, the Inter-Tropical Convergence Zone (ITCZ) moved north during the first half of August over Sudan, reaching Dongola, and then began to retreat southwards. Good rains fell throughout the summer breeding areas from Darfur to the Red Sea Hills, and to the western lowlands in Eritrea. Good rains also extended into the Libyan Desert of northwest Sudan, north of Wadi Howar, reaching Nukhaylah oasis and Jebel Abyad Plateau where it rarely rains. Good rains that fell along the Red Sea from Jizan, Saudi Arabia to the Gulf of Aden in Yemen will allow breeding conditions to become

favourable. Light rain fell in parts of the summer breeding area in the interior of Yemen, mainly in Marib where flooding was reported and in Wadi Hadhramaut. Consequently, only limited areas appear to be favourable for breeding. In Oman, light showers occurred in parts of the northern interior but vegetation continued to be dry. In the Horn of Africa, good rains fell in northern and eastern Ethiopia. Light rains associated with the Karan season fell over parts of the Somali plateau near Boroma and on the escarpment, and vegetation started to become green in some areas.

In the **Eastern Region**, good rains associated with the monsoon fell in summer areas along both sides of the Indo-Pakistan border during the first decade of August but very little rain fell thereafter. Consequently, there remained a 20% deficit in West Rajasthan and ecological conditions were favourable for breeding only in some areas. In Pakistan, green vegetation was mainly limited to Cholistan. With an early withdrawal of the monsoon, vegetation is expected to dry out earlier than normal and breeding will end in both countries.



### Area Treated

Ethiopia 313 ha (August)



### Desert Locust Situation and Forecast

( see also the summary on page 1 )

#### WESTERN REGION

##### **Mauritania**

###### • SITUATION

During the second half of August, isolated solitary adults were present and maturing in Hodh El Chargui east of Nema (1636N/0715W), and northeast of Aguilal Faye (1827N/1444W) in Trarza and southwest Adrar.

###### • FORECAST

*Small-scale breeding will cause locust numbers to increase within a widespread area between Trarza and Hodh El Chargui. If vegetation starts to dry out in October, numerous groups may form.*

##### **Mali**

###### • SITUATION

During August, no locusts were seen by surveys in the west near Kayes (1426N/1128W) and Nara

(1510N/0717W), and in central areas near Mopti (1430N/0415W).

- **FORECAST**

*Scattered adults are likely to be present in parts of Timetrine, Tilemsi Valley, the Adrar des Iforas, and southern Tamesna and will breed on a small scale, causing locust numbers to increase within a widespread area. If vegetation starts to dry out in October, numerous groups may form.*

### **Niger**

- **SITUATION**

During August, surveys were undertaken in the Tamesna between Agadez (1658N/0759E) and In Abangharit (1754N/0559E) where isolated mature solitary adults were seen.

- **FORECAST**

*Small-scale breeding will cause locust numbers to increase in the Tamesna. Scattered adults may be present in the Air Mountains and breeding on a small scale in areas of recent rainfall. If vegetation starts to dry out in October, numerous groups may form.*

### **Chad**

- **SITUATION**

During August, isolated adults were maturing in northeast Kanem near Salal (1448N/1712E), in northwest Batha and southern BET near Beurkia (1523N/1800E), in Biltine between Arada (1501N/2040E) and Kalait (1550N/2054E), and in BET near Fada (1714N/2132E) and north of the Mourdi Depression.

- **FORECAST**

*Small-scale breeding will occur over a widespread area, extending from Kanem to the northeast, causing locust numbers to increase. If vegetation starts to dry out in October, numerous groups may form.*

### **Senegal**

- **SITUATION**

No reports were received 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.*

### **Algeria**

- **SITUATION**

No locusts were seen during surveys carried out in the Central Sahara near Adrar (2753N/0017W) in August.

- **FORECAST**

*Scattered adults may appear in the extreme south and breed on a small scale in areas of recent rainfall.*

### **Morocco**

- **SITUATION**

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

- **FORECAST**

*No significant developments are likely.*

### **Libya**

- **SITUATION**

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

- **FORECAST**

*No significant developments are likely.*

### **Tunisia**

- **SITUATION**

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

- **FORECAST**

*No significant developments are likely.*

## **CENTRAL REGION**

### **Sudan**

- **SITUATION**

During August, low numbers of mature solitary adults were present at densities up to 150 adults/ha in a few places of North Kordofan near Sodiri (1423N/2906E), in White Nile east of Umm Saiyala (1426N/3112E), in the Baiyuda Desert north of Khartoum, in Kassala state south of Derudeb (1731N/3607E), on the western side of the Red Sea Hills northwest of Haiya (1820N/3621E), and in River Nile and Northern states along the Nile Valley near Ed Damer (1734N/3358E), Abu Hamed (1932N/3320E), Merowe (1830N/3149E), Debba (1821N/3057E) and Dongola (1910N/3027E). Small-scale breeding occurred further north towards Wadi Halfa (2147N/3122E) where a few third instar hoppers were reported.

- **FORECAST**

*Small-scale breeding is likely to be progress within a large area between Darfur and the Red Sea Hills. Breeding will continue during the forecast period, causing locust numbers to gradually increase. Once the seasonal rains end, vegetation will start to dry*



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*out and locusts will concentrate and could form small groups.*

### Eritrea

- SITUATION

No locust reports were received during August.

- FORECAST

*Scattered adults are likely to be present in the western lowlands and breeding in areas of recent rainfall. Consequently, locust numbers will increase.*

### Ethiopia

- SITUATION

Several swarms laid eggs in July that hatched in August, causing a few hundred small hoppers bands to form in a small area of about 50 km x 75 km in the Awash Valley on the eastern side of the Amhara highlands near Mile (1123N/4052E). A few swarms continued to lay eggs at mid-month. Control teams treated 313 ha during August. On 5 August, an immature swarm was seen between Jijiga (0922N/4250E) and the border of northern Somalia.

- FORECAST

*Hatching and band formation may continue in the northern Awash Valley during September. Any hoppers that escape control operations may form small adult groups or swarmlets that could spread into adjacent highland areas or move southeast towards Dire Dawa.*

### Djibouti

- SITUATION

No reports were received during August.

- FORECAST

*No significant developments are likely.*

### Somalia

- SITUATION

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

- FORECAST

*Isolated adults may be present in a few places on the plateau. No significant developments are likely.*

### Egypt

- SITUATION

During August, no locusts were seen on the Red Sea coast between Shalatyn (2308N/3535E) and the Sudan border.

- FORECAST

*No significant developments are likely.*

### Saudi Arabia

- SITUATION

During August, no locusts were seen in the interior between Medinah (2430N/3935E) and (2731N/4141E), in the Asir Mountains near Taif (2115N/4021E) and Abha (1813N/4230E), and on the Red Sea coast between Lith (2008N/4016E) and Qunfidah (1909N/4107E).

- FORECAST

*Scattered adults may be present and breeding on a small scale in areas of recent rainfall near Jizan. Consequently, locust numbers could increase slightly.*

### Yemen

- SITUATION

A late report indicated immature swarms were seen on the southern edge of the highlands to the north of the Gulf of Aden coastal plains near Am Rijja (1302N/4434E) on 13-17 July.

In the absence of surveys, the situation remained unclear during August. There were unconfirmed reports of scattered immature and mature adults on the northern Red Sea coastal plains near Suq Abs (1600N/4312E), and a few immature and mature swarms in the south near Zinjibar (1306N/4523E) and Am Rijja.

- FORECAST

*Small-scale breeding may be in progress in parts of the interior near Marib and in Hadhramaut. Small-scale breeding is expected to occur on the northern Red Sea coastal plains and perhaps on the Gulf of Aden coast, causing locust numbers to increase slightly in both areas. A few small swarms may persist in the southern highlands.*

### Oman

- SITUATION

No locusts were seen during surveys in the northern interior west of Adam (2223N/5731E) and in the Musandam Peninsula during August.

- 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**

During July, no locusts were seen on the southeast coast near Chabahar (2517N/6036E) and in the interior near Bampur (2711N/6028E).

During August, no locusts were seen during surveys carried out in Sistan-Baluchistan, Hormozgan and Kerman provinces.

#### **• FORECAST**

*No significant developments are likely.*

### **Pakistan**

#### **• SITUATION**

During August, isolated mature solitarious adults were seen at 6 places near the Indian border in Bahawalpur and Rahimyar Khan districts of Cholistan. No locusts were seen in Tharparkar desert or in the Lasbela area west of Karachi.

#### **• FORECAST**

*Small-scale breeding will continue during September, causing locust numbers to increase slightly between Tharparkar and Cholistan. Unless further rains fall, conditions are expected to become dry earlier than in most years and breeding will come to an end in October.*

### **India**

#### **• SITUATION**

During August, isolated immature solitarious adults were present in northwest Rajasthan between Bikaner (2801N/7322E) and the Pakistan border. No locusts were seen in Gujarat.

#### **• FORECAST**

*Small-scale breeding will continue during September, causing locust numbers to increase slightly in Rajasthan. Unless further rains fall, conditions are expected to become dry earlier than in most years and breeding will come to an end in October.*

### **Afghanistan**

#### **• SITUATION**

No reports received.

#### **• FORECAST**

*No significant developments are likely.*

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/ECLo Desert Locust Information Service (ecllo@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=P\\_LjxRk5CAwvG\\_0iFxfjZ5C2fLByF3jvhHOx](https://www.youtube.com/playlist?list=P_LjxRk5CAwvG_0iFxfjZ5C2fLByF3jvhHOx)
- **FAODLIS Google site.** A platform for sharing problems, solutions, tips and files for eLocust2, eLocust2Mapper, RAMSES and remote sensing (<https://sites.google.com/site/faodlis>)



## **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



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- **FAOLOCUST 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

**2014 events.** The following activities are scheduled or planned:

- **CRC.** 29<sup>th</sup> Session of the Commission, Abu Dhabi, UAE (23-27 November)
- **EMPRES/WR.** 13<sup>th</sup> EMPRES Liaison Officer Meeting, Ouagadougou, Burkina Faso (1-5 December)
- **EMPRES/WR.** 10<sup>th</sup> Steering Committee Meeting, Ouagadougou, Burkina Faso (8-9 December)
- **SWAC.** 50<sup>th</sup> Anniversary of the Commission, Tehran, Iran (15 December)
- **SWAC.** 29<sup>th</sup> Session of the Commission, Tehran, Iran (16-18 December)



### 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.

#### **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

##### **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.

##### **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.

#### **RECESSION**

- period without widespread and heavy infestations by swarms.

#### **REMISSION**

- period of deep recession marked by the complete absence of gregarious populations.

### **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.



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# Desert Locust Summary

## Criquet pèlerin - Situation résumée

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FORECAST TO:  
PREVISION AU: **15.10.14**

LIKELY PROBABLE 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:  
**August 2014**  
**août 2014**

	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)			