

warning level: **THREAT**

# DESERT LOCUST BULLETIN

FAO Emergency Centre for Locust Operations



No. 422



**General Situation during November 2013  
Forecast until mid-January 2014**

(3 Dec 2013)

The Desert Locust situation worsened during November along the Red Sea coast and in northwest Mauritania. Locusts continued to gregarize and form hopper bands and groups of hoppers and adults in Mauritania, Yemen, and Sudan as well as in Eritrea where an outbreak developed unexpectedly. A few swarms formed in Sudan and Yemen. Control operations intensified in all countries. Nevertheless, a second generation of breeding will cause locust infestations to increase further in December and January. More hopper bands and small swarms are likely to form along both sides of the Red Sea and, to a lesser extent, in northwest Mauritania. All efforts are required to reduce locust numbers and the potential threat to crops in the affected countries.

**Western Region.** An outbreak continued in northwest Mauritania where ground control operations intensified and treated some 32,000 ha of hopper groups and bands and an increasing number of adult groups. A second generation of breeding will commence in December with egg-laying, hatching and band formation. Consequently, locust numbers will increase further and infestations could expand and extend into adjacent areas of Western Sahara, northern Mauritania and southern Morocco. Locust numbers declined in the summer breeding areas of the northern Sahel in Mali, Niger and Chad where no significant developments are expected during the forecast period. Limited control operations were

carried out against hopper groups and adults in irrigated cropping areas of central Algeria.

**Central Region.** The situation worsened in the winter breeding areas along both sides of the Red Sea, particularly in Yemen and Eritrea, in November. Ground teams treated more than 9,000 ha of hopper groups, bands, and an increasing number of adult groups that formed on the northern Red Sea coast in Yemen. An outbreak unexpectedly developed on the central Red Sea coast in Eritrea from undetected breeding. Ground control operations treated more than 10,000 ha of hopper groups and bands. Breeding increased on the Red Sea coast in Saudi Arabia where limited control operations were carried out against hopper and adult groups. In Sudan, ground and aerial control operations treated nearly 21,000 ha of hopper bands and groups of hoppers and adults that persisted in the summer breeding areas of the interior. A few swarms formed in Sudan and Yemen. Breeding was underway on the Red Sea coast and in subcoastal areas of Sudan where locusts were concentrating and gregarizing. A second generation of breeding started in Yemen and Saudi Arabia, and is expected to occur in Eritrea during January. This will cause locust numbers to increase further and, unless controlled, hopper bands and swarms will form that will threaten the Region. Elsewhere, local breeding occurred in eastern Ethiopia and a tropical cyclone brought heavy rain to winter breeding areas in northwest Somalia.

**Eastern Region.** The situation remained calm during November. Isolated adults were present in Rajasthan, India. Good rains fell in spring breeding areas along the coast of southeast Iran and southwest Pakistan where low numbers of adults may appear by the end of the forecast period.

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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No. 422

## DESERT LOCUST BULLETIN



### Weather & Ecological Conditions in November 2013

**Ecological conditions remained favourable for breeding in the winter breeding areas along both sides of the Red Sea except for Egypt, and in northwest Mauritania.**

In the **Western Region**, light to moderate showers fell in early November in west and northwest Mauritania, extending into Western Sahara and southern Morocco. Light showers fell again in both areas during the last decade. Consequently, ecological conditions remained favourable for breeding in northwest Mauritania and had improved in parts of Western Sahara from September rains. No significant rain fell in the northern Sahel of West Africa. Ecological conditions remained dry except in parts of the Adrar des Iforas in northern Mali and in the Air Mountains of Niger where limited areas of green vegetation were present. Very little rain fell in Northwest Africa and breeding conditions were only favourable in parts of southern Algeria and near irrigated cropping areas in the central Sahara of Algeria.

In the **Central Region**, good rains fell in the winter breeding areas along both sides of the Red Sea during November. In Saudi Arabia, moderate rains fell on the northern coastal plains during the first decade and on the central and southern coast during the second decade while light rain fell at other times during the month along parts of the coast. In Yemen, heavy rains fell in the highlands during the last decade, some of which may have runoff onto the Red Sea coastal plains. In Eritrea, good rains fell near Massawa during the last two decades. No significant rain fell along the coast in Sudan and Egypt. Ecological conditions were favourable for breeding along the Red Sea coast of Saudi Arabia, Yemen and Eritrea and on the Gulf of Aden coast west of Aden in Yemen. Conditions improved in Tokar Delta and along Wadi Oko in northeast Sudan from earlier rains but mainly dry conditions prevailed in adjacent areas of southeast Egypt. In the Horn of Africa, good rains fell in eastern Ethiopia early in the month. In northern Somalia, heavy rains of up to 75-300 mm

associated with Tropical Cyclone 03A fell on the coast, escarpment and plateau on 11-12 November, causing flooding and damage. Consequently, ecological conditions will improve in the winter breeding areas on the northwest coast. In Oman, light to heavy showers, up to 100 mm, fell early in the third week of the month in coastal and interior areas of the north. In the summer breeding areas, vegetation continued to dry out in the interior of Sudan except near cultivated areas in the Nile Valley.

In the **Eastern Region**, good rains fell during the last decade of November in spring breeding areas along the coast of southeast Iran and southwest Pakistan. Nevertheless, ecological conditions remained dry and unfavourable for breeding in the Region.



### Area Treated

During November, control operations intensified nearly 74,000 ha were treated compared to about 5,000 ha in October.

Algeria	40 ha (November)
Eritrea	10,040 ha (1-21 November)
Mauritania	32,355 ha (November)
Saudi Arabia	466 ha (November)
Sudan	740 ha (October revised)
	20,709 ha (November)
Yemen	9,000 ha (1-15 Nov)



### Desert Locust Situation and Forecast

*( see also the summary on page 1 )*

#### WESTERN REGION

##### **Mauritania**

##### • SITUATION

During November, hopper bands formed near Akjoujt (1945N/1421W) and southwest of Bennichab (1932N/1512W) while hopper groups were present elsewhere in the northwest north of 1830N and west of 13W. Hopper densities were up to 300 hoppers/m<sup>2</sup>. Fledging was underway and, as the month progressed, immature adult groups increased, some of which became mature after mid-month. By the end of the month, most of the hoppers had reached fifth instar and adult densities were up to 30,000 adults/ha. Control operations intensified during November and ground teams treated 32,355 ha. No locusts were seen between Atar (2032N/1308W) and Zouerate (2244N/1221W).

- **FORECAST**

*Groups of adults will continue to mature in the northwest and a second generation of breeding will commence in December with egg-laying and hatching, causing hoppers to form numerous groups and small bands. Some adults and groups may move northwards during periods of warm southerly winds, reaching parts of Tiris-Zemmour where breeding may occur in areas that receive rainfall.*

### **Mali**

- **SITUATION**

During November, no locusts were seen by surveys carried out in the west near Kayes (1426N/1128W) and in central areas between Nara (1510N/0717W) and Mopti (1430N/0415W).

- **FORECAST**

*Low numbers of locusts are likely to persist in parts of the Adrar des Iforas.*

### **Niger**

- **SITUATION**

During November, locust numbers declined and only isolated immature and mature solitarious adults mixed with a few fourth instar hoppers persisted in the Tamesna between In Abangharit (1754N/0559E) and Tassara (1650N/0550E). Isolated immature solitarious adults from local breeding were slowly maturing in the southeast near Ngourtou (1519N/1312E) and the Chad border.

- **FORECAST**

*Low numbers of locusts are expected to persist in parts of the Air Mountains and perhaps the Tamesna.*

### **Chad**

- **SITUATION**

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

- **FORECAST**

*Low numbers of locusts are likely to be present and may persist in parts of the northeast.*

### **Senegal**

- **SITUATION**

No reports were received during November.

- **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 November, second to fourth instar hopper groups and scattered immature solitarious adults were present in irrigated cropping areas in the central Sahara near Adrar (2753N/0017W). Ground teams treated 40 ha. No locusts were seen during surveys carried out southeast of Beni Abbes (3011N/0214W), between Adrar and In Salah (2712N/0229E), and south and west of Tamanrasset (2250N/0528E).

- **FORECAST**

*Small-scale breeding may continue in irrigated areas near Adrar where small groups could form. Low numbers of adults may appear near Tindouf during periods of warm southerly winds.*

### **Morocco**

- **SITUATION**

During November, isolated immature solitarious adults were seen at a few places in the Adrar Settouf region of Western Sahara near Bir Gandouz (2136N/1628W), Tichla (2137N/1453W) and the Mauritanian border. No locusts were seen further north between Bir Anzarane (2353N/1431W) and Oum Dreyga (2406N/1316W).

- **FORECAST**

*An increasing number of adults and small groups are likely to appear in southern areas of the Western Sahara. Small-scale breeding will occur in areas that receive rainfall and could cause small groups to form.*

### **Libya**

- **SITUATION**

No reports were received during November.

- **FORECAST**

*No significant developments are likely.*

### **Tunisia**

- **SITUATION**

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

- **FORECAST**

*No significant developments are likely.*

## **CENTRAL REGION**

### **Sudan**

- **SITUATION**

During November, hopper groups and band continued to form in the summer breeding areas



No. 422



No. 422

## DESERT LOCUST BULLETIN

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northwest of Khartoum (1533N/3235E) in Wadi Muqaddam, along the Atbara River, and near Derudeb (1731N/3607E) where fledging occurred and immature and mature adults formed groups. A few small immature and mature swarms were present southwest of Derudeb while solitary immature and mature adults were seen in the Nile Valley between Merowe (1830N/3149E) and Berber (1801N/3400E). Control operations treated 20,819 ha of which 2,600 ha were by air. In the winter breeding areas, breeding occurred in the northeast along W. Oko near Tomala (2002N/3551E) and on the Red Sea coast in the Tokar Delta (1827N/3741E) where solitary adults were laying eggs and solitary hoppers were present. A few hopper bands were also present near Tomala while a few immature and mature adult groups were reported in Tokar. Ground teams treated 140 ha. At the end of the month, scattered immature and mature solitary adults appeared on the coastal plains between Tokar and the Eritrean border.

### • FORECAST

*Locust numbers will continue to decline in the summer breeding areas in the interior where a few adult groups and perhaps small swarmlets may form and move into cropping areas along the Nile or continue to the Red Sea coast. In the winter breeding areas, small-scale breeding will cause locusts to increase in the northeast and along the Red Sea coast. Hatching in Wadi Oko/Diib and Tokar will increase and small hopper and adult groups may form.*

### Eritrea

#### • SITUATION

During November, locust numbers suddenly increased on the central Red Sea coast between Shelshela (1553N/3906E), Wekiro (1548N/3918E) and Emberemi (1541N/3925E) from undetected egg-laying during the last week of October. Groups of *transiens* adults were first seen copulating north of Wekiro on the 1<sup>st</sup>. Hatching occurred during the first three weeks of the month and *transiens* and gregarious hoppers formed small first to fourth instar groups and bands by the 21<sup>st</sup> near Shelshela and Emberemi. Ground teams treated 10,040 ha on 1-21 November. Infestations were also reported further north near Afabet (1612N/3841E). In early November, there were

unconfirmed reports of locusts on the northern coast near Sudan.

#### • FORECAST

*Hoppers will fledge from the second week of December onwards, causing an increasing number of adult groups and perhaps a few small swarms to form near Shelshela and Emberemi. Locust numbers are also expected to increase on the coast between Shelshela and the Sudanese border from breeding in areas of recent rain and runoff. Intensive survey and control efforts are required.*

### Ethiopia

#### • SITUATION

During November, small-scale breeding continued in the eastern region where low densities of third to fifth instar solitary hoppers, fledglings, immature and mature solitary adults and a few mature adult groups were present north of Dire Dawa (0935N/4150E). Ground teams treated 4 ha of hopper groups.

#### • FORECAST

*Small-scale breeding is expected to continue in areas of recent rainfall near Dire Dawa and Jijiga.*

### Djibouti

#### • SITUATION

No reports were received during November.

#### • FORECAST

*No significant developments are likely.*

### Somalia

#### • SITUATION

No reports were received during November.

#### • FORECAST

*Low numbers of adults may appear on the northwest coastal plains and breed in areas of recent rainfall.*

### Egypt

#### • SITUATION

During November, isolated immature solitary adults were present near Tushka (2247N/3126E). No locusts were seen during surveys carried out on the Red Sea coast and subcoastal areas between Berenice (2359N/3524E) and the Sudan border, along both sides of Lake Nasser in the Allaqi and Garf Husein (2317N/3252E) areas and near Abu Simbel (2219N/3138E), northeast of Aswan (2405N/3256E), and in the northwest near Siwa (2912N/2531E) and Salum (3131N/2509E).

#### • FORECAST

*Adults and perhaps a few small groups are expected to appear along the Red Sea coast in the southeast. Small-scale breeding will cause locust numbers to increase between Berenice and Halaib*

where hatching will occur and hoppers may form small groups.

### **Saudi Arabia**

#### **• SITUATION**

During November, breeding increased on the central Red Sea coastal plains between Lith (2008N/4016E) and Qunfidah (1909N/4107E) and on the southern plains between Jizan (1656N/4233E) and the Yemen border. More infestations were present on the central coast where adult groups were laying eggs. In both areas, hoppers of all instars formed small groups and mature adult groups were present. Ground teams treated 466 ha. Scattered immature and mature solitary adults were present on the northern coast near Yenbo (2405N/3802E) and in the Asir Mountains near Abha (1813N/4230E).

#### **• FORECAST**

*Locust numbers will continue to increase along the Red Sea coastal plains as second generation hatching occurs between Lith and Qunfidah in December and breeding continues in areas of recent rainfall between Jizan and Yenbo. Hoppers and adults are likely to form groups and perhaps small bands and swarms.*

### **Yemen**

#### **• SITUATION**

During November, hoppers continued to form groups and small bands on the northern coast of the Red Sea between Al Zuhrah (1541N/4300E) and Midi (1619N/4248E). Most of the hoppers had fledging by mid-month, and immature and mature adults were forming groups. An immature swarm was seen on the 23<sup>rd</sup>. A second generation of egg-laying commenced during the second week. Ground teams treated about 9,000 ha during the first half of November. Small-scale breeding caused locust numbers to increase on the central Red Sea coast and on the Gulf of Aden coast where solitary hoppers and adults were present between Bajil (1458N/4314E) and Zabid (1410N/4318E), and west of Aden (1250N/4503E). Hatching continued northwest of Aden and hoppers formed early instar groups and a few small bands near Am Rija (1302N/4434E).

#### **• FORECAST**

*First generation groups and swarms will form on the northern Tihama during December, mature and lay eggs from late December onwards. Early second generation hatching and band formation will commence in the beginning of December and increase in January. New groups and swarms could form after mid-January. Locust numbers will also increase on the Gulf of Aden coast west of Aden where adults will form groups in December and a second generation of egg-laying could occur in January.*

### **Oman**

#### **• SITUATION**

No locusts were seen during surveys carried out in the northern interior near Adam (2223N/5731E) and on the Batinah coast near Jamma (2333N/5733E) in November.

#### **• FORECAST**

*Low numbers of adults may appear in areas of recent rainfall in Dhahera, Dakhiliya and Sharqiya. No significant developments are likely.*

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

#### **• FORECAST**

*No significant developments are likely.*

### **EASTERN REGION**

#### **Iran**

#### **• SITUATION**

No locusts were seen during surveys carried out on the southeastern coastal plains between Jask (2540N/5746E) and Chabahar (2517N/6036E) in November.

#### **• FORECAST**

*Low numbers of adults may appear in areas of recent rainfall along the southeast coast at the end of the forecast period.*

#### **Pakistan**

#### **• SITUATION**

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

#### **• FORECAST**

*Low numbers of adults may appear in areas of recent rainfall along the Baluchistan coast at the end of the forecast period.*

#### **India**

#### **• SITUATION**

During November, isolated immature solitary adults persisted in Rajasthan along the Pakistan border northwest of Bikaner (2801N/7322E) and mature solitary adults were seen at one place northwest of Jaisalmer (2652N/7055E).

#### **• FORECAST**

*Locust numbers will continue to decline in Rajasthan as vegetation dries out. No significant developments are likely.*



No. 422



No. 422

## DESERT LOCUST BULLETIN

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### 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/ECLO Desert Locust Information Service (eclo@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))
- **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>)
- **FAOLOLUST 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:

- **Current threats.** Information section
- **Yemen outbreak.** Archives – Outbreaks 2013 section

**eLocust3.** A demonstration version is available for viewing and downloading at Slideshare in:

English: <http://www.slideshare.net/FAOLocust/elocust3-apreviewenglishversion>

French: <http://www.slideshare.net/FAOLocust/elocust3-a-preview-french-version>

Arabic: <http://www.slideshare.net/FAOLocust/elocust3-apreview-arabicversion>

**Greenness maps.** Dynamic maps of green vegetation evolution every decade can now be downloaded from Columbia University's IRI (USA) website: [http://iridl.ldeo.columbia.edu/maproom/Food\\_Security/Locusts/Regional/greenness.html](http://iridl.ldeo.columbia.edu/maproom/Food_Security/Locusts/Regional/greenness.html)

**2013-14 events.** The following activities are scheduled or planned:

- **EMPRES/WR.** 12<sup>th</sup> Liaison Officer meeting, 1-4 December, Algiers (Algeria)
- **EMPRES/WR.** 9<sup>th</sup> Steering Committee meeting, 5 December, Algiers (Algeria)
- **DLCC.** Desert Locust Control Financing System meeting, 11-13 March, FAO Rome



## 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.



No. 422

DESERT LOCUST BULLETIN



No. 422

## DESERT LOCUST BULLETIN

---

### 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.

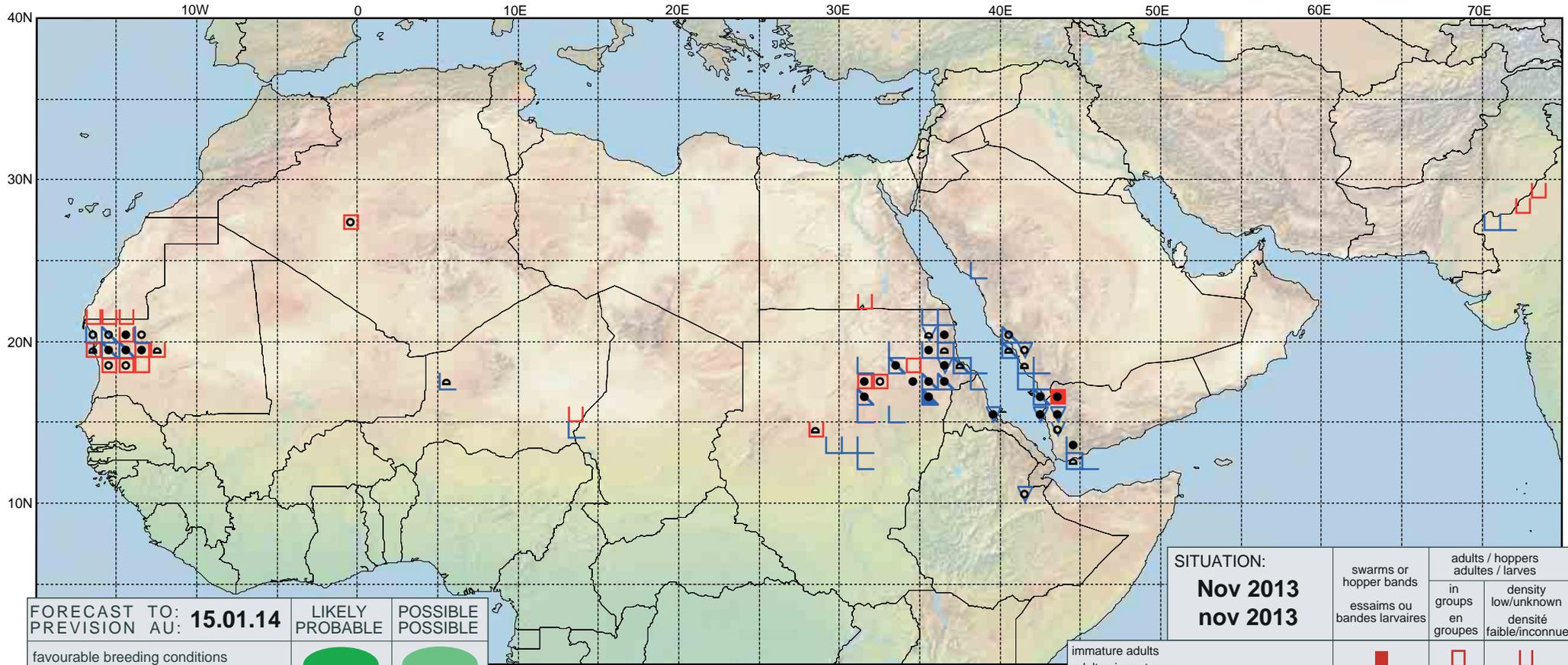
### EASTERN

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



# Desert Locust Summary

## Criquet pèlerin - Situation résumée



FORECAST TO:  
PREVISION AU: **15.01.14**

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:  
**Nov 2013**  
**nov 2013**

	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)			