

warning level: **THREAT**

# DESERT LOCUST BULLETIN

FAO Emergency Centre for Locust Operations



No. 406



**General Situation during July 2012  
Forecast until mid-September 2012**

(3 Aug 2012)

The Desert Locust situation continued to remain serious during July as egg laying occurred in northern Niger and Mali. So far, only limited hatching has been reported in Niger but additional hatching is expected in both countries that will cause locust numbers to increase. Hoppers could form groups and bands in August, and adult groups and small swarms could develop in September. Smaller infestations were present in southern Mauritania, southern Algeria and eastern Chad where small-scale local breeding will cause locust numbers to increase during the forecast period. Survey operations should be maintained in all affected countries and control operations carried out when possible in order to reduce locust numbers and the potential threat to crops and pastures.

**Western Region.** Breeding commenced during July in the summer breeding areas of the northern Sahel in southeast Mauritania, northern Mali, and central and northern Niger. Groups of adults were reported in parts of northern Mali and Niger, and near the Sudanese border in eastern Chad. By the end of the month, more adult groups were found on the Tamesna Plains in northeast Mali near the border of Niger where they were laying eggs. Scattered solitary adults were present in southern Mauritania, southern Algeria and eastern Chad. So far, only low numbers of hoppers have hatched but additional hatching will occur during August, mainly in Niger and Mali and,

to a lesser extent in Mauritania, Chad and southern Algeria. Hoppers may form groups and bands in Mali and Niger where fledging is expected to commence in about mid-August and adults could form small groups and swarms. All efforts are required to undertake the necessary survey and control operations in those areas that are secure.

**Central Region.** Small-scale breeding commenced in eastern Sudan during July while scattered mature solitary adults were present elsewhere in the summer breeding areas in the interior. Similar populations are likely to be present in western Eritrea. Groups of immature adults were reportedly present in West and North Darfur where continued insecurity limits survey operations. Small-scale breeding will cause locust numbers to increase slightly during the forecast period in Sudan and Eritrea. Locust numbers declined in Oman where only low numbers of immature adults persisted in a few places in the northeast. No locusts were reported elsewhere in the region.

**Eastern Region.** Low numbers of solitary adults were present during July along both sides of the Indo-Pakistan border in Rajasthan, India and Cholistan, Pakistan. The seasonal monsoon arrived in these areas by mid-month but rains have been poor so far. Consequently, ecological conditions were only slowly becoming favourable for breeding that should occur during the forecast period. 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 July 2012

**Good rains fell in the northern Sahel from Mauritania to western Eritrea where ecological conditions were favourable for breeding in most areas. Poor monsoon rains fell along both sides of the Indo-Pakistan border.**

In the **Western Region**, the Inter-Tropical Convergence Zone (ITCZ) returned to its long-term seasonal average position over West Africa by the end of July where it was located between 18N and 19N. Consequently, good rains fell in southern Mauritania, northern Mali (Timetrine, Tilemsi Valley, Adrar des Iforas, Tamesna), central and northern Niger (Tamesna, Air Mountains, pasture areas), and central and northeast Chad. Ecological conditions were favourable for breeding in most of these areas. No significant rain fell in the northern Tamesna of northeast Mali and northern Niger, or in western Mauritania. In northwest Africa, light rain fell in a few places south of the Hoggar Mountains in southern Algeria. As a result, vegetation was becoming green in the extreme south along the border of Mali (near Bir Bou Mokhtar) and Niger (near In Guezzam). Vegetation was drying out in the Western Sahara in Morocco where good rains fell in June. Dry conditions prevailed elsewhere in the region.

In the **Central Region**, good rains fell as far north as 16N in the summer breeding areas in the interior of Sudan and western Eritrea during July. Consequently, ecological conditions became favourable for breeding in West and North Darfur (north of Mellit), North Kordofan (to Abu Uruq), Khartoum and Kassala states in Sudan, and in the western lowlands in Eritrea. Vegetation remained dry on the northern Red Sea coast in Eritrea and in northern Somalia. Light rain fell in eastern Ethiopia between Dire Dawa and Jigjiga. In Yemen, light to moderate rains fell along parts of the Red Sea coast and in the interior near Hadhramaut and Ataq. Consequently, ecological conditions should become favourable for small-scale breeding in both countries. Conditions were dry or drying in northern Oman.

In the **Eastern Region**, the summer monsoon reached Rajasthan, India and adjacent areas of eastern Pakistan during the second week of July. So far, rainfall associated with the monsoon has been poor and well below long-term normal averages. Only light showers fell in eastern Rajasthan, and near the Indo-Pakistan border in Tharparkar and Cholistan deserts in Pakistan. Consequently, ecological conditions were only slowly becoming favourable for breeding and were limited to a few areas in both countries.



### Area Treated

Niger 1,147 ha (June)  
50 ha (1-4 July)



### Desert Locust Situation and Forecast

( see also the summary on page 1 )

#### WESTERN REGION

##### **Mauritania**

###### • SITUATION

During July, scattered mature solitary adults were present at densities up to 300 adults/ha mainly in the southeast (Hodh Ech Chargui) and, to a lesser extent, in parts of southern Hodh El Gharbi, northern Gorgol and southwest Tagant. Egg-laying and low numbers of second and third instar solitary hoppers were seen in Hodh Ech Chargui.

###### • FORECAST

*Small-scale breeding will continue in the south, causing locust numbers to increase slightly. There is a low risk that a few small adult groups could arrive from adjacent areas in northern Mali.*

##### **Mali**

###### • SITUATION

During July, a group of mature adults was seen in the north between Gao (1616N/0003W) and Kidal (1827N/0125E) in W. Edjerer (1748N/0103W) on the 16<sup>th</sup>. Isolated immature and mature adults were present in the Tilemsi Valley at Taouloust (1919N/0033E). At the end of the month, scattered immature and mature adults were reported in the central Tamesna at Laya (1759N/0325E), and groups of immature and mature solitary and *transiens* adults were seen between Tin Amazagh (1739N/0350E) and the Niger border. Some of the adults were laying eggs. In central Mali, no locusts

were seen during surveys carried out north of Segou (1326N/0616W) and east of Mopti (1430N/0415W).

- **FORECAST**

*Breeding is expected to occur in areas of recent rainfall in Tamesna, Adrar des Iforas and Timetrine, causing locust numbers to increase. Hoppers are likely to form small groups and bands in August, and adults could form small groups and swarms in September. All efforts are required to undertake the necessary survey and control operations.*

### **Niger**

- **SITUATION**

During July, adults dispersed and laid eggs in the north (Tamesna and Air Mountains) and in the centre (Agadez (1700N/0756E) to Zinder (1346N/0858E)). Hatching commenced near In Gall (1651N/0701E) and Tanout (1458N/0852E) during the first week, and isolated solitary hoppers were present. Groups of mature adults were seen in Tamesna between In Gall and Tegguidda (1726N/0637E) and in the southeast of the Air Mountains. Ground teams treated 50 ha in the eastern Air Mountains.

- **FORECAST**

*Hatching will continue in the north and centre where hoppers may form groups and bands in some places. Fledging is expected to commence in about mid-August and adults could form small groups and swarms. All efforts are required to undertake the necessary survey and control operations.*

### **Chad**

- **SITUATION**

In early July, a group of immature adults was reported in the east at Dissé (1343N/2206E) near Adre (1328N/2212E) and the Sudanese border. During the remainder of the month, low numbers of mature solitary adults were present near Abeche (1349N/2049E). No locusts were seen south of Nokou (1435N/1446E) in southwest Kanem.

- **FORECAST**

*Small-scale breeding will cause locust numbers to increase slightly in areas of recent rainfall in Kanem, Batha, Biltine and, perhaps, Tibesti. Regular surveys are recommended in all areas.*

### **Senegal**

- **SITUATION**

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

- **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 July, isolated mature solitary adults persisted in the extreme south near In Guezzam (1937N/0552E) and the Niger border. No locusts were seen during surveys along the Mali border near Bir Bou Mokhtar (2119N/0057E).

- **FORECAST**

*Small-scale breeding may occur in the extreme south in areas that receive rainfall, causing locust numbers to increase.*

### **Morocco**

- **SITUATION**

During July, isolated mature solitary adults persisted in the northeast near Figuig (3207N/0113W) and the Algerian border.

- **FORECAST**

*No significant developments are likely.*

### **Libya**

- **SITUATION**

No locusts were reported during July.

- **FORECAST**

*No significant developments are likely.*

### **Tunisia**

- **SITUATION**

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

- **FORECAST**

*No significant developments are likely.*

## **CENTRAL REGION**

### **Sudan**

- **SITUATION**

A late report indicated that no surveys were carried out in June. However, there was a report from North Darfur of an immature group of adults northwest of Mellit (1407N/2543E) on the 24<sup>th</sup>.

During July, mature solitary adults were present in North Kordofan between Umm Badr (1413N/2758E)



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and the Nile River, in the southern Baiyuda Desert, and in the north near Dongola (1910N/3027E). Egg laying was in progress in the east between Kassala (1527N/3623E) and Derudeb (1731N/3607E). Groups of immature adults were reportedly present in West and North Darfur.

- **FORECAST**

*Small-scale breeding will cause locust numbers to increase but remain below threatening levels in North Kordofan, River Nile, Northern and Kassala states. Breeding is also expected to occur in West and North Darfur where hoppers and adults could form small groups.*

### **Eritrea**

- **SITUATION**

During July, no locusts were seen in the winter breeding areas along the northern Red Sea coast between Afabet (1612N/3841E) and Mehimet (1723N/3833E).

- **FORECAST**

*Small-scale breeding is expected to occur in the western lowlands, causing locust numbers to increase slightly. Surveys should be carried out to monitor the situation.*

### **Ethiopia**

- **SITUATION**

No locusts were seen during surveys carried out in the north and east of the country in July.

- **FORECAST**

*No significant developments are likely.*

### **Djibouti**

- **SITUATION**

No reports were received during July.

- **FORECAST**

*No significant developments are likely.*

### **Somalia**

- **SITUATION**

No reports were received during July.

- **FORECAST**

*No significant developments are likely.*

### **Egypt**

- **SITUATION**

During July, no locusts were seen during surveys on

the Red Sea coast between Shalatyn (2308N/3535E) and the Sudanese border, and near Lake Nasser in the Abu Simbel (2219N/3138E) and Al Allaqi areas.

- **FORECAST**

*No significant developments are likely.*

### **Saudi Arabia**

- **SITUATION**

During July, no locusts were seen during surveys in the Asir Mountains or in the interior.

- **FORECAST**

*No significant developments are likely.*

### **Yemen**

- **SITUATION**

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

- **FORECAST**

*Low numbers of adults are likely to be present in a few places along the Tihama where they could breed on a small scale in areas of recent rainfall. Small-scale breeding could also occur in the summer breeding areas of the interior in areas of recent rainfall.*

### **Oman**

- **SITUATION**

During July, low numbers of immature solitary adults persisted in a few places near the eastern coast north of Duqm (1939N/5743E) and in the Sharqiya region on northeastern side of the Wahiba Sands near Bidiya (2226N/5848E).

- **FORECAST**

*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 southern coastal plains near Jask (2540N/5746E) in July.

- **FORECAST**

*No significant developments are likely.*

### **Pakistan**

- **SITUATION**

During the first half of July, no locusts were seen during surveys carried out in the summer breeding areas of Cholistan and Tharparkar deserts. During the second fortnight, isolated mature solitary adults

were seen at 8 places in Cholistan near the Indian border.

- **Forecast**

*Small-scale breeding will occur in parts of Cholistan and Tharparkar, causing locust numbers to increase slightly but remain below threatening levels.*

### India

- **SITUATION**

During July, low numbers of mature solitary adults were present in Rajasthan between Bikaner (2801N/7322E) and the Pakistani border.

- **FORECAST**

*Small-scale breeding will occur in parts of Rajasthan, causing locust numbers to increase slightly but remain below threatening levels.*

### 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 (ecl@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://www.devocast.eu/user/images/dl/Form.do>)
- **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>)
- **FAOLOLCUST Twitter.** The very latest updates are posted on Twitter (<http://twitter.com/faolocust>)
- **FAOLocust Facebook.** A social means of information exchange using Facebook (<http://www.facebook.com/pages/FAOLocust/314165595289302>)
- **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>)

**SWAC website.** A new website for the FAO Commission for Controlling the Desert Locust in South-West Asia (SWAC) is now available at <http://www.fao.org/ag/locusts/SWAC>. Comments are welcome.

**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 Section – Briefs
- **Sahel Crises.** Information Section
- **Press Release (17 July).** Information Section



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**Sahel locust threat.** An updated information package explains the current threat to the Sahel in West Africa by Desert Locust. It is available at: <http://www.fao.org/ag/locusts/en/info/2002/index.html>.

**2012 events.** The following activities are scheduled or planned:

- **CRC.** 28<sup>th</sup> Session, Jeddah, Saudi Arabia (24-28 November)
- **SWAC.** 28<sup>th</sup> Session, New Delhi, India (5-7 December, tbc)

**Hassan Ali.** It is with deep regret that we announce the death of Hassan Ali on 6 July 2012. He was the Assistant Director of the National Locust Centre (ANLA) in Chad. His enthusiasm and energetic manner will be truly missed by all colleagues. We would like to express our sincere condolences to his family and government.



### 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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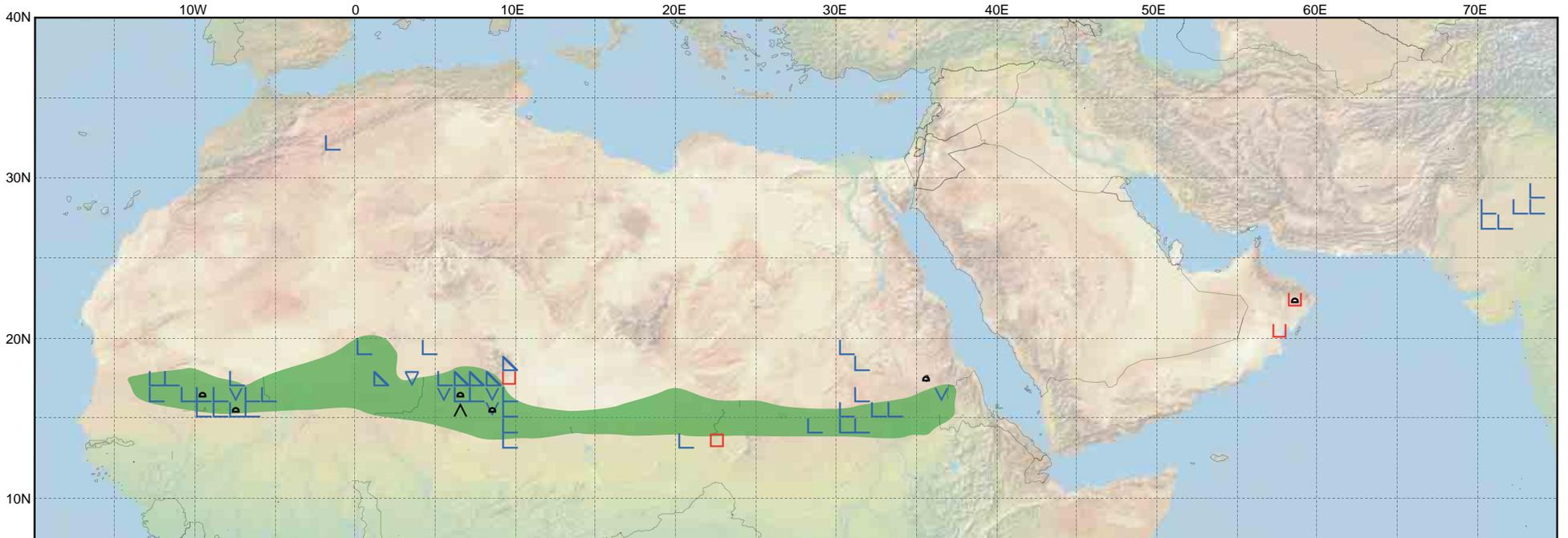
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# Desert Locust Summary

## Criquet pèlerin - Situation résumée



FORECAST TO: PREVISION AU:	<b>15.09.12</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>July 2012</b> <b>juillet 2012</b>	swarms or hopper bands essaims ou bandes larvaires	adults / hoppers adultes / larves	
		in groups en groupes	density low/unknown densité faible/inconnue

immature adults adultes immatures			
mature or partly mature adults adultes matures ou partiellement matures			
adults, maturity unknown adultes, maturité inconnue			
egg laying or eggs pontes ou œufs			
hoppers larves			
hoppers & adults (combined symbol example) larves et adultes (exemple symboles combinés)			