

warning level: **THREAT**

# DESERT LOCUST BULLETIN

FAO Emergency Centre for Locust Operations



No. 415



**General Situation during April 2013  
Forecast until mid-June 2013**

(3 May 2013)

The Desert Locust situation remained serious during April in northern Sudan where hopper bands were present near crops along a 1,000 km stretch of the Nile River. Swarms could form in May and threaten crops, and a second generation of breeding could take place before the summer or, if early rains fall, adults could move to the summer breeding areas in Sudan. There is also concern in Saudi Arabia where new generation adults could move from the northwest to the interior of the Arabian Peninsula, including Yemen, and breed in areas of recent heavy rains. In Northwest Africa, breeding occurred south of the Atlas Mountains, causing locust numbers to increase and small hopper bands to form. As vegetation dries out, adults and perhaps a few groups and small swarms will move south towards the summer breeding areas in the northern Sahel where early rains have fallen so far in northern Niger.

**Western Region.** Locust numbers increased in Northwest Africa as a result of small-scale breeding south of the Atlas Mountains in **Morocco** and **Algeria**. Hatching started by mid-April and small groups and bands were forming in some areas by the end of the month. Control operations were carried out in Algeria. Breeding will continue in both countries, causing more hopper groups and bands to form in May. As vegetation dries out, an increasing number of adult groups and perhaps a few small swarms

may form in June and move towards the northern Sahel, particularly the Air Mountains in northern **Niger** where good rains fell in late April. This could be supplemented by groups of adults and perhaps a few small swarms from Sudan. Elsewhere, low to moderate numbers of adults may start to appear in the summer breeding areas of **Mauritania**, **Mali** and **Chad** by the end of the forecast period, especially if early rainfall occurs.

**Central Region.** Hopper bands continued to form near cropping areas along the Nile River in northern **Sudan** during April. Groups and small swarms are expected to form in May and a second generation of breeding could occur in June along the Nile or adults may move to the summer breeding areas in Sudan if early rains fall. Locust numbers declined further in winter breeding areas along both sides of the Red Sea due to control operations and drying vegetation. However, breeding continued in northwest **Saudi Arabia** and there is a risk that the new generation of adults could move into the interior and breed in areas of recent rainfall on the edge of the Empty Quarter and in the interior of **Yemen**. A few hopper bands were present on the northern Red Sea coast in **Eritrea**. Small-scale breeding occurred near Lake Nasser in southern **Egypt**. Control operations continued in Sudan, Egypt, Saudi Arabia and Eritrea.

**Eastern Region.** Very few locusts were seen during a joint Iran/Pakistan survey in the spring breeding areas of southeast **Iran** during April. No locusts were seen in western **Pakistan**. Small-scale breeding may occur in areas of recent rainfall in both countries. By the end of the forecast period, low numbers of adults may start appearing in the summer breeding areas along both sides of the Indo-Pakistan border. 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.

**Telephone:** +39 06 570 52420 (7 days/week, 24 hr)

**Facsimile:** +39 06 570 55271

**E-mail:** [eclo@fao.org](mailto:eclo@fao.org)

**Internet:** [www.fao.org/ag/locusts](http://www.fao.org/ag/locusts)

**Facebook:** [www.facebook.com/faolocust](http://www.facebook.com/faolocust)

**Twitter:** [twitter.com/faolocust](http://twitter.com/faolocust)



No. 415

## DESERT LOCUST BULLETIN



### Weather & Ecological Conditions in April 2013

**Good rains fell in the spring and summer breeding areas of the Arabian Peninsula where ecological conditions are likely to improve. Light rains fell in parts of the spring breeding areas in Northwest Africa where conditions are favourable for breeding.**

In the **Western Region**, light rains fell at times during April in Northwest Africa and good rains fell in northern Niger. In Northwest Africa, light rain fell in western Algeria during the first decade, in eastern Algeria during the second decade and in northern-central Algeria and in central Libya during the last decade of the month. Consequently, ecological conditions will continue to improve and be favourable in the spring breeding areas south of the Atlas Mountains, primarily in the Draa and Ziz-Ghris valleys in Morocco and near irrigated and low-lying areas in central and northwestern parts of the Algerian Sahara. In the Sahel of West Africa, good rains fell during the last decade of April in the Air Mountains and Ténéré Desert of northern Niger, which should allow ecological conditions to improve for locust survival and breeding. Elsewhere, dry conditions prevailed.

In the **Central Region**, good rains fell in the interior of Saudi Arabia during the last week of April. Rainfall was heaviest on the western edge of the Empty Quarter and showers extended into the interior of Yemen. Consequently, ecological conditions are expected to become favourable for breeding in the coming weeks. Heavy rains also fell in northern Oman at the end of the month, causing flooding in some areas. Once floodwaters recede, ecological conditions are likely to become favourable in the northern regions of Dhahera, Dakhliya and Batinah. In the Horn of Africa, good rains fell on the plateau in northwest Somalia and in adjacent areas of eastern Ethiopia at times during the first half of the month. Vegetation continued to dry out along both sides of the Red Sea in the absence of rainfall. Unusual rains fell in northwest Sudan along the Chad and Libya border between Mellit in North Darfur and Jebel Uweinat. Nevertheless, dry and unfavourable conditions

prevailed in northern Sudan except in irrigated cropping areas along the Nile River.

In the **Eastern Region**, good rains fell during the first decade of April in the spring breeding areas in southeast Iran and western Pakistan. Good rains fell again at the end of the month on the Baluchistan coast in Pakistan. Vegetation became green in large parts of the northern Jaz Murian Basin and Zaboli Valley in Iran and in the Turbat Valley, Pakistan. Consequently, ecological conditions were favourable for small scale breeding in these areas.



### Area Treated

During April, control operations declined in April, treating 22,000 ha compared to 79,000 ha in March.

Algeria	4,664 ha (April)
Egypt	403 ha (April)
Eritrea	3,510 ha (March)
	1,060 ha (April)
Israel	5,168 ha (March, updated)
Morocco	781 ha (March, updated)
Saudi Arabia	13,712 ha (April)
Sudan	2,252 ha (April)



### 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 April.

###### • FORECAST

*Low to moderate numbers of adults and perhaps a few groups may appear in the southeast at the end of the forecast period but breeding is unlikely unless early rainfall occurs.*

##### **Mali**

###### • SITUATION

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

###### • FORECAST

*Low to moderate numbers of adults and perhaps a few groups may appear from the north in the Adrar des Iforas at the end of the forecast period but breeding is unlikely unless early rainfall occurs.*

## Niger

### • SITUATION

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

### • FORECAST

*Low to moderate numbers of adults and perhaps a few groups are likely to appear from the north in the Air Mountains and early small-scale breeding may occur in areas of recent rainfall. There is a low risk that groups of adults and perhaps a few small swarms could arrive from the east in June.*

## Chad

### • SITUATION

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

### • FORECAST

*There is a low risk that groups of adults and perhaps a few small swarms could appear from northern Sudan and, unless early rains fall, continue towards the west.*

## Senegal

### • SITUATION

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

### • 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 April, an increasing number of adult groups copulated and laid eggs in the northwestern Sahara near the Moroccan border between Bechar (3135N/0217W) and Ain Sefra (3245N/0035W), southwest of Ain Sefra in W. El Rharbi (3150N/0100E), and close to irrigated areas in the central Sahara near Adrar (2753N/0017W), and In Salah (2712N/0229E). Hatching started during the second week in the central Sahara and followed shortly thereafter in other areas. By the end of the month, small bands of 1<sup>st</sup> and 2<sup>nd</sup> instar hoppers had formed near Bechar while groups of first to third instar hoppers formed near Adrar, and first instar groups were seen near In Salah. Solitary adults were also present in all of these areas. No locusts were seen near Tindouf (2741N/0811W), Tamanrasset (2250N/0528E), Djanet (2434N/0930E) and Illizi (2630N/0825E). Ground teams treated 4,664 ha in April.

### • FORECAST

*Small-scale breeding will continue along the southern side of the Atlas Mountains and in the northern and central parts of the Sahara. Groups of hoppers and small bands are likely to form that will fledge from late May onwards. As vegetation dries out, an increasing number of adult groups and perhaps a few small swarms may form and move towards the south.*

## Morocco

### • SITUATION

During April, groups of adults laid eggs near Guelmim (2859N/1003W) and along the Algerian border in the Draa Valley south of Tata (2944N/0758W). From mid-month onwards, hatching occurred and small patches of mainly second instar hoppers had formed by the end of the month south of Guelmim and in the Draa Valley southwest of Zagora (3019N/0550W). Mature solitary adults were scattered throughout the Draa Valley, the Ziz-Ghris Valley near Erfoud (3128N/0410W), and from Erfoud to Figuig (3207N/0113W).

In Western Sahara, scattered immature solitary adults persisted at a few places in the south near Ma'Tallah (2223N/1502W).

### • FORECAST

*Small-scale breeding will continue along the southern side of the Atlas Mountains in the Draa and Ziz-Ghris valleys and in the northeast near Figuig. Fledging is likely to commence by the end of May. As vegetation dries out, hoppers and adults may form small groups.*

## Libya

### • SITUATION

No reports were received in April.

### • FORECAST

*Low numbers of locusts may be present in the southwest from recent breeding. Small-scale breeding could continue during May, causing locust numbers to increase slightly. As vegetation dries out, a few small groups may form.*

## Tunisia

### • SITUATION

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



No. 415



No. 415

## DESERT LOCUST BULLETIN

- **FORECAST**

*No significant developments are likely.*

### **CENTRAL REGION**

#### **Sudan**

- **SITUATION**

During April, locust infestations declined on the southern coastal plains of the Red Sea due to control operations and drying vegetation. In the northeast, a few solitary adults were seen in Wadi Diib near the Egyptian border in the first week. A mature swarm was reported along the Atbara River near Ed Damer (1734N/3358E) on 1 April. Hatching and band formation continued near cropping areas along the Nile Valley in Northern and River Nile States between Wadi Halfa (2147N/3122E) and Ed Damer. By end of the month, some hoppers had reached fifth instar. Ground teams treated 2,252 ha in April.

- **FORECAST**

*Hopper bands will continue to develop in cropping areas along the Nile River in Northern and River Nile States and fledge from early May onwards. Thereafter, small groups and swarms are likely to form and remain in cropping areas, mature and lay eggs in June or, if early rains fall, move to the summer breeding areas. There is a low risk that some adult groups or small swarms might move from the Nile Valley towards the west.*

#### **Eritrea**

- **SITUATION**

A late report indicated that ground and aerial control operations were carried out against 3,510 ha of hopper bands and swarmlets during March on the northern Red Sea coastal plains between Sheib (1551N/3903E) and the Sudanese border at Karora (1745N/3820E). A few swarmlets that escaped control reached the highlands between Keren (1546N/3827E) and south of Asmara.

During April, small groups of second to fourth instar *transiens* hoppers and bands were present on the northern coastal plains near Mersa Gulbub (1633N/3908E). Ground teams treated 1,060 ha in April.

- **FORECAST**

*Locust numbers will decline on the northern coastal plains of the Red Sea as vegetation continues to dry out. No significant developments are likely.*

#### **Ethiopia**

- **SITUATION**

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

- **FORECAST**

*No significant developments are likely.*

#### **Djibouti**

- **SITUATION**

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

- **FORECAST**

*No significant developments are likely.*

#### **Somalia**

- **SITUATION**

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

- **FORECAST**

*No significant developments are likely.*

#### **Egypt**

- **SITUATION**

During the first half of April, locust infestations continued to decline on the Red Sea coast in the southeast. A few small groups of fledglings, immature and mature solitary and gregarious adults were present in the El Shazly and Abraq areas west of Berenice (2359N/3524E). Some of the adults were copulating. No locusts were seen on the Red Sea coast between Shalatyn and the Sudanese border. Breeding occurred near crops on the western side of Lake Nasser where groups of first and second instar gregarious hoppers were present mainly after mid-month between Abu Simbel (2219N/3138E) and Tushka (2247N/3126E), and in the Garf Husein (2317N/3252E) area.

- **FORECAST**

*Locust numbers will decline on the southern coast of the Red Sea in the El Shazly and Abraq areas. Small-scale breeding will continue in crops along the Lake Nasser shoreline where fledging will occur during May and small adult groups could form.*

#### **Israel**

- **SITUATION**

Although egg-laying occurred in the northern Negev in late March, no hatching was reported and no locusts were seen after 2 April.

- **FORECAST**

*No significant developments are likely.*

#### **Saudi Arabia**

- **SITUATION**

During the first half of April, adult groups continued to lay eggs in subcoastal areas of the northern Red



Sea, mainly to the northwest and northeast of Tabuk (2823N/3635E) and east of Khaybar (2542N/3917E). Eggs that were laid in March hatched and hopper bands formed between Khaybar and Tabuk, and on the extreme northern part of the coast near the Gulf of Aqaba. By the end of April, some hoppers had reached fifth instar. Breeding also continued on the northern Red Sea coast where late instar hopper groups, bands and fledglings were present near Umm Lajj (2501N/3716E) and Masturah (2309N/3851E). Control operations treated 13,712 ha, including 4,720 ha by air, in April.

• **FORECAST**

*Hopper bands in the Tabuk and Khaybar areas are likely to fledge from early May onwards and adults could form groups and small swarms that could move into areas of recent rainfall in the interior and lay eggs. Further hatching is expected near Tabuk and hoppers could form groups and small bands during May. Locust numbers will continue to decline on the Red Sea coastal plains.*

**Yemen**

• **SITUATION**

During April, an isolated immature adult was seen on the central Red Sea coastal plains between Hodeidah (1450N/4258E) and Bayt Al Faqih (1430N/4317E). No locusts were seen elsewhere on the Red Sea coast and along the Gulf of Aden coastal plains. There were unconfirmed reports on 28-29 April of hoppers in the interior between Safer (1534N/4547E) and Al Abr (1608N/4714E), and adults near Al Hazm (1609N/4447E) and between Ataq (1435N/4649E) and Nisab (1430N/4629E).

• **FORECAST**

*Low to moderate numbers of adults and perhaps a few small groups could appear in the interior between Marib and Hadhramaut and breed in areas of recent rainfall.*

**Oman**

• **SITUATION**

During April, no locusts were seen during surveys carried out on the Musandam Peninsula and in the northern interior between Nizwa (2255N/5731E) and Adam (2223N/5731E).

• **FORECAST**

*Low numbers of adults could appear in areas of recent rainfall in Dhahera and Dakhliya and eventually breed.*

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

• **FORECAST**

*No significant developments are likely.*

**EASTERN REGION**

**Iran**

• **SITUATION**

During April, low numbers of mature solitarious adults were seen on the southeast coast near Chabahar (2517N/6036E) on the 4<sup>th</sup> during a joint survey with Pakistan, India and Afghanistan. Some of the adults were copulating.

• **FORECAST**

*Locust numbers will decline on the southeast coast as vegetation dries out. No significant developments are likely.*

**Pakistan**

• **SITUATION**

A late report indicated that no locusts were seen during surveys carried out in coastal and interior areas of Baluchistan from 18 March to 9 April. No locusts were seen during the remainder of the month.

• **Forecast**

*Small-scale breeding may occur early in the forecast period in areas of recent rainfall in Baluchistan. Low numbers of adults may start to appear in Cholistan and Tharparkar at the end of the forecast period.*

**India**

• **SITUATION**

No locusts were seen during surveys carried out during April.

• **FORECAST**

*Low numbers of adults may start to appear in Rajasthan at the end of the forecast period.*

**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



No. 415



No. 415

## DESERT LOCUST BULLETIN

---

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://www.devcast.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>)
- **FAOLOUST 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>)

**SWAC website.** The FAO Commission for Controlling the Desert Locust in South-West Asia (SWAC) website (<http://www.fao.org/ag/locusts/SWAC>) is now available in French.

**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
- **NE Egypt invasion.** Information section
- **Sudan threat.** Information section
- **CRC/SWAC Inter-regional Locust Information Officers workshop final report.** Activities Section – Workshops and Seminars (Inter-regional)

**CRC/SWAC Inter-regional Locust Information Officers workshop.** The workshop presentation is available for viewing and downloading at Slideshare (<http://www.slideshare.net/FAOLocust/1304-dli-ocairo>).

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

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

French: <http://www.slideshare.net/FAOLocust/elocust3f-a-preview-french-version>

Arabic: <http://www.slideshare.net/FAOLocust/elocust3-a-preview-arabic-version>

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

- **CLCPRO/EMPRES-RO.** Western Region Locust information officers workshop, Niamey, Niger (6-10 May)
- **CRC.** National training course on Desert Locust survey and control, Dubai, UAE (5-9 May)
- **CLCPRO.** Regional training workshop for national locust communication officers, Algiers, Algeria (19-23 May)
- **CLCPRO.** Expert meeting to update regional action plan for June to September, Agadir, Morocco (10-11 June)
- **CLCPRO.** 8<sup>th</sup> Executive Committee, Agadir, Morocco (12-14 June)
- **CLCPRO.** Environmental technical group meeting, Dakar, Senegal (24-28 June)



## 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. 415

DESERT LOCUST BULLETIN



No. 415

## 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

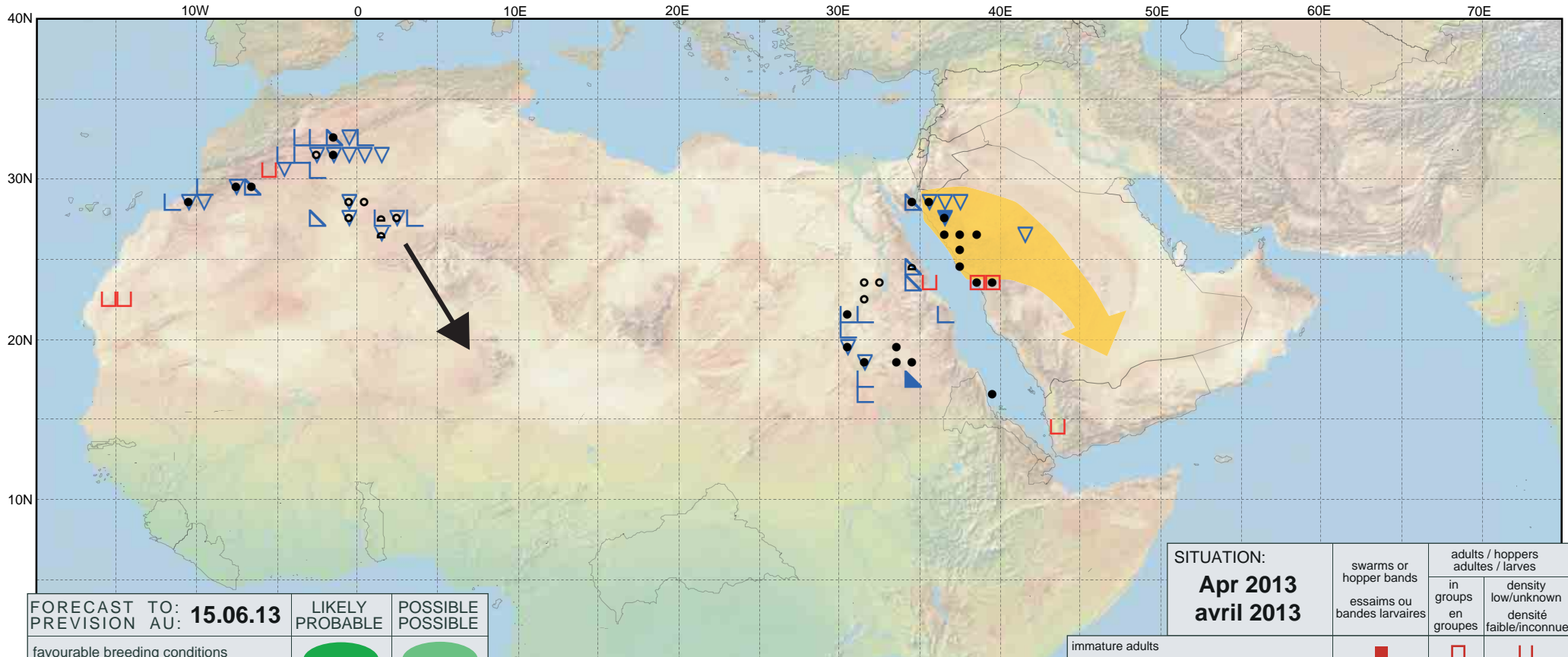
- locust-affected countries in South-West Asia: Afghanistan, India, Iran and Pakistan.





# Desert Locust Summary

## Criquet pèlerin - Situation résumée



FORECAST TO: PREVISION AU: <b>15.06.13</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>Apr 2013</b> <b>avril 2013</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)			