

warning level: **THREAT** (C. & E. Regions)

# DESERT LOCUST BULLETIN

FAO Emergency Centre for Locust Operations



No. 344

(6 June 2007)



**General Situation during May 2007  
Forecast until mid-July 2007**

The Desert Locust situation has become extremely serious in the interior of Yemen where unusually heavy rains fell and breeding occurred over a large area during May. Consequently, aerial operations requiring external assistance will need to be mounted in July to avoid the formation of swarms and to minimize the threat to agriculture. Control operations continued in the interior of Saudi Arabia against hopper bands but declined along both sides of the Red Sea. Operations were also mounted against hopper bands on the coast of Iran and Pakistan, along the Ethiopian and northern Somalia border, and in central Algeria. A tropical cyclone is likely to affect current infestations in the Arabian Peninsula and southwest Asia. All efforts should be made to monitor the developing and potentially dangerous situation closely and carefully.

**Western Region.** The situation remained calm in the region during May. Limited breeding continued in central **Algeria** where ground control operations were carried out against small hopper bands in irrigated cropping areas. Isolated solitary adults were reported in northern **Mali** and southeast **Niger**. Small-scale breeding will commence with the onset of the seasonal rains in southern **Mauritania**, northern Mali and Niger, and in eastern **Chad** in July, causing locust numbers to increase slightly.

**Central Region.** Aerial and ground control operations continued against hopper bands on the Red Sea coast in **Saudi Arabia** where infestations had declined by mid-May. Hatching and band formation occurred in the interior of Saudi Arabia and control operations were in progress throughout the month. Any infestations that are not controlled are likely to form small swarms in June that could move to Sudan and Yemen. Widespread breeding occurred in the interior of **Yemen** causing numerous hopper bands to form within a large remote area. New swarms will form and another generation of breeding will occur in July that will threaten crops and pastures. Small swarms are likely to form along the border of **Ethiopia** and northern **Somalia** and probably remain there to mature and lay eggs in July. Locusts declined on the Red Sea coast in **Sudan** as groups of adults moved to the Nile Valley where small-scale breeding is likely to occur there and elsewhere in the interior during July. Scattered adults were present in southern **Egypt** and in northern **Oman**.

**Eastern Region.** Small hopper bands formed on the coast of southeast **Iran** and western **Pakistan** during May from breeding that occurred in the spring. Local breeding continued in Rajasthan, **India** near the border with Pakistan. Ground control operations were carried out in all three countries. Higher than normal populations are expected to be present at the beginning of the summer along both sides of the Indo-Pakistan border where breeding will start with the onset of the monsoon rains.

The FAO Desert Bulletin is issued monthly, supplemented by Updates during periods of increased Desert Locust activity, and is distributed by e-mail, FAO pouch and airmail by the Locusts and Other Migratory Pests Group, AGP Division, FAO, 00153 Rome, Italy. It is also available on the Internet.

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No. 344

## DESERT LOCUST BULLETIN



### Weather & Ecological Conditions in May 2007

**Unusually heavy rains and flooding occurred in the interior of Yemen where ecological conditions were already favourable for breeding. Favourable breeding conditions persisted along the border of Ethiopia and northern Somalia.**

In the **Western Region**, mainly dry conditions persisted during May. The Inter-Tropical Convergence Zone (ITCZ) remained south of the summer breeding area in the Sahel. Consequently, ecological conditions remained unfavourable for breeding. Nevertheless, there may have been limited green vegetation in parts of the Adrar des Iforas in northern Mali and in the Air Mountains of Niger to allow low numbers of locusts to survive. In Northwest Africa, vegetation was starting to dry out in the Draa, Ziz and Ghrib Valleys along the southern side of the Atlas Mountains in Morocco.

In the **Central Region**, light rain fell in the spring breeding areas in central Saudi Arabia during the first decade of May. Heavier showers fell along both sides of the border between Ethiopia and northern Somalia, extending from Dire Dawa to Erigavo. Showers also occurred in the Red Sea Hills in northeast Sudan near the Egyptian and Eritrean borders, and in the highlands in Eritrea. Nevertheless, ecological conditions were favourable for breeding on the escarpment and plateau in northern Somalia as well as in the railway area and the northern Ogaden in eastern Ethiopia. Conditions were also favourable for breeding within a large portion of the interior of Yemen from Marib to the northeast, extending to the Dhofar region in southern Oman. In the summer breeding areas, unusually heavy rains fell in the interior of Yemen on 25-30 May. Good rains also fell in adjacent areas of southern Oman on 24-25 May. In Sudan, the ITCZ reached Geneina, Nyala, El Obeid and Gedaref by the end of the month but dry conditions prevailed except in cropping areas along the Nile. Good rains fell on the southern part of the western lowlands in Eritrea near Teseney at the end of May.

In the **Eastern Region**, light to moderate rain fell in early May in the spring breeding area in western Pakistan between Pasni and Lasbela. Consequently,



### Area Treated

During May, more than 46,000 ha were treated, mainly in Saudi Arabia.

Algeria	100 ha (May)
Ethiopia	1,461 ha (May)
India	110 ha (16-30 April)
	180 ha (1-6 May)
Iran	4,705 ha (May)
Pakistan	1,806 ha (May)
Saudi Arabia	34,815 ha (May)
Somalia	176 ha (May)
Sudan	8,011 ha (1-30 April)
	70 ha (May)
Yemen	3,265 ha (1-17 May)



### Desert Locust Situation and Forecast

( see also the summary on page 1 )

#### WESTERN REGION

##### **Mauritania**

###### • SITUATION

No reports were received in May.

###### • FORECAST

*Scattered adults are expected to appear in the summer breeding areas in the south and small-scale breeding should commence with the onset of the seasonal rains.*

##### **Mali**

###### • SITUATION

Nomads reported that a few isolated adults were present in the extreme north of the Adrar des Iforas near the Algerian border in W. Inabsar (2013N/0014E) and W. Takorkat (2030N/0036E) in early May.

###### • FORECAST

*Scattered adults are expected to appear in the summer breeding areas in the northeast and small-scale breeding should commence with the onset of the seasonal rains.*

## Niger

### • SITUATION

Isolated immature adults were seen at two places in the southeast between Zinder (1346N/0858E) and Diffa (1318N/1236E) at the end of May.

### • FORECAST

*Scattered adults are expected to appear in the summer breeding areas in Tamesna and small-scale breeding should commence with the onset of the seasonal rains.*

## Chad

### • SITUATION

No locusts were reported during the first half of May.

### • FORECAST

*No significant developments are likely.*

## Senegal

### • SITUATION

No reports were received in May.

### • FORECAST

*No significant developments are likely.*

**Benin, Burkina Faso, Cameroon, Cape Verde, Côte d'Ivoire, Gambia, Ghana, Guinea Bissau, Guinea, Liberia, Nigeria, Sierra Leone and Togo**

### • FORECAST

*No significant developments are likely.*

## Algeria

### • SITUATION

During May, local breeding about 100 km north and south of Adrar (2753N/0017W) caused locust numbers to increase in irrigated crops where scattered mature *transiens* adults were present and first to fourth instar gregarious hoppers formed a few groups and bands at densities up to 200 hoppers/m<sup>2</sup>. Similar infestations were seen to the northwest in W. Saoura at densities of 1-5 hoppers/m<sup>2</sup> and 100 adults/tree. Isolated late instar solitary hoppers were present at one place between Beni Abbes (3011N/0214W) and the Moroccan border. In the south, scattered immature solitary locusts were seen at one place west of Tamanrasset (2250N/0528E) and isolated mature solitary adults were present in one area west of Djanet (2434N/0930E). Control teams treated 1,500 ha during May in W. Saoura and near Adrar and Tamanrasset.

### • FORECAST

*Small-scale breeding may continue between Beni Abbes and Adrar where hoppers and adults could form a few small groups. Low numbers of solitary adults are likely to persist in the south and southeast.*

## Morocco

### • SITUATION

No locusts were reported during May.

### • FORECAST

*No significant developments are likely.*

## Libyan Arab Jamahiriya

### • SITUATION

No locusts were seen during surveys carried out in the south in early May, and no locusts were reported during the remainder of the month.

### • FORECAST

*No significant developments are likely.*

## Tunisia

### • SITUATION

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

### • FORECAST

*No significant developments are likely.*

## CENTRAL REGION

### Sudan

### • SITUATION

In early May, scattered immature and mature solitary and gregarious adults, at densities up to 900 adults/ha, and a few groups persisted on the Red Sea coast in the Tokar Delta and on the plains near the Eritrean border. By mid-month, most of these adults had moved to crops along the Nile Valley between Ed Damer (1734N/3358E) and Dongola (1910N/3027E) where mainly scattered solitary and gregarious populations and a few groups at densities up to 15,000 adults/ha were present. Some adults were copulating. Adults were also present in the Baiyuda Desert west of Ed Damer to Merowe (1830N/3149E). Ground control teams treated 70 ha during the first half of May.

### • FORECAST

*Small-scale breeding is likely to occur in crops in the Nile Valley between Khartoum and Dongola that could give rise to small hopper groups and bands. From mid-June onwards, immature adults and small swarms may arrive in Kassala, Nile, Northern, Khartoum, White Nile, North Kordofan and North Darfur states from breeding areas in Saudi Arabia, mature and lay eggs with the onset of the summer rains.*



No. 344



No. 344

## DESERT LOCUST BULLETIN

### Eritrea

#### • SITUATION

No surveys were carried out during May.

#### • FORECAST

*Scattered adults and perhaps a few small groups may be present in the highlands. These populations are expected to move to the western lowlands and breed on small scale once the seasonal rains commence.*

### Ethiopia

#### • SITUATION

During May, hatching and band formation occurred in the Harawa (0953N/3836E) area near Dire Dawa. Ground and aerial control operations treated 1,461 ha of second to fourth instar bands, at densities of up to 2,000 hoppers/m<sup>2</sup>, mixed with low numbers of gregarious mature adults. By the end of the month, some of the hoppers had reached fifth instar.

#### • FORECAST

*The remaining hopper bands will fledge early in the forecast period and there is a possibility that a few small groups and swarms of immature adults could form. The adults are likely to remain in the area between Dire Dawa and Jijiga where they will mature and lay eggs if rainfall occurs. If so, hatching and band formation are likely to occur in about mid-July.*

### Djibouti

#### • SITUATION

The situation was reported to be calm during May.

#### • FORECAST

*No significant developments are likely.*

### Somalia

#### • SITUATION

During May, control operations were carried out against numerous small hopper bands on the plateau between Boroma (0956N/4313E) and Hargeisa (0931N/4402E). At the end of the month, hatching was still in progress and hoppers had reached the fifth instar. Ground control operations treated 176 ha in May.

#### • FORECAST

*The remaining hopper bands will fledge early in the forecast period and there is a possibility that a few small groups and swarms of immature adults could form. The adults are likely to remain in the area*

*between Boroma and Burao where they will mature and lay eggs if rainfall occurs. If so, hatching and band formation are likely to occur in about mid-July.*

### Egypt

#### • SITUATION

During May, scattered solitary and *transiens* immature adults were present at a few places along the Red Sea coast between Halaib (2213N/3638E) and the Sudanese border. Scattered solitary and *transiens* mature adults were seen in the Red Sea Hills near Wadi Allaqi (ca. 23N/31E). Adults were copulating at one place on the 7<sup>th</sup>. A few solitary adults were maturing near Abu Simbel (2219N/3138E). No locusts were seen in the Western Desert near Sh. Oweinat.

#### • FORECAST

*Low numbers of scattered locusts are likely to persist along the Lake Nasser shoreline and local breeding could occur in a few places.*

### Saudi Arabia

#### • SITUATION

During May, aerial and ground control operations continued on the Red Sea coast between Lith (2008N/4016E) and Qunfidah (1909N/4107E), treating 13,905 ha of numerous second to fifth instar hopper bands at densities up to 70 hoppers/m<sup>2</sup>. Groups of adults were also present, some of which were copulating during the first week. By the end of the month, operations had finished.

In the spring breeding areas in the interior, groups of gregarious adults, at densities up to 40 adults/m<sup>2</sup>, laid eggs during the last decade of April and the first week of May near Khaybar (2542N/3917E), Buraydah (2621N/4358E) and Wadi Dawasir (2028N/4447E). Hatching started in early May and continued to about mid-month, leading to the formation of numerous small hopper bands at densities up to 300 hoppers/m<sup>2</sup>. By the last week of May, some of the hoppers had reached fifth instar. Aerial and ground control operations treated 20,910 ha in the interior.

#### • FORECAST

*Any hopper band infestations that are not controlled in the interior will form small swarms in June. Most of these swarms are likely to move west across the Red Sea towards the summer breeding areas in Sudan although there is a risk that some swarms could also move south into the interior of Yemen.*

### Yemen

#### • SITUATION

During May, the locust situation deteriorated as heavy rains fell and more infestations were found in the interior. Substantial breeding occurred over a large area along the southern edge of the Empty

Quarter between Al Abr (1608N/4714E) and Thamud (1717N/4955E) where late instar *transiens* and gregarious hoppers formed groups and bands at densities up to 200 hoppers/m<sup>2</sup> in many wadis of the plateau. By the end of the month, most of the hoppers had fledged and adults were forming groups. Small-scale breeding occurred on the plateau east of Thamud to Remah (1727N/5034E) and near the Oman border between Shehan (1746N/5229E) and Hat (1719N/5205E) where scattered solitary hoppers and maturing adults were present. Control operations treated 2,965 ha on 12-16 May in Wadi Hazar (1744N/4901E).

Smaller infestations were present further south in the interior between Bayhan (1452N/4545E) and Shabwah (1522N/4700E). Ground control operations treated 300 ha of third to fifth instar solitary and gregarious hoppers at densities up to 8 hoppers/m<sup>2</sup>, fledglings and solitary immature adults at densities of about 150 adults/ha. Adults were reported to be copulating in some places.

On the southern coast, small infestations of third to fifth instar hopper bands, at densities up to 30 hoppers/m<sup>2</sup>, and fledglings persisted on the southern coast near Seyhut (1512N/5115E). Control operations could not be carried out due to the presence of beehives and, by the end of the month, small immature swarms were forming and moving into the interior. Scattered late instar solitary hoppers, immature and mature adults were present on the coast near Al Ghaydah (1612N/5210E) where a few adults were seen copulating.

• FORECAST

*Locust numbers are likely to increase dramatically as a second generation of breeding occurs in the interior. At the same time, a few swarms could appear from the interior of Saudi Arabia. Hatching is expected in mid-July and new swarms could form by the end of August. Breeding will be concentrated mainly between Al Abr and Thamud but will also occur further south in areas of recent rainfall in Ramlat Sabatyn and between Shabwah and Bayhan. Locusts may also appear and breed in the Marib and Al Jawf areas, and perhaps on the Tihama and in the interior of Al Mahra in areas of recent rainfall. Locusts will decline on the southern coast.*

**Oman**

• SITUATION

No locusts were seen during a survey carried out in the central interior near the Saudi Arabian border and in the southern province of Dhofar near Yemen on 6-9 May. Isolated mature solitary adults were present on the Batinah coast northwest of Muscat (2337N/5833E) and near Sohar (2421N/5644E).

• FORECAST

*Scattered adults might be present and could breed in the interior of Dhofar along the Yemen border where good rains fell in March. Small-scale breeding is likely to occur along the Batinah coast and adjacent interior areas that are affected by cyclone Gonu. There is a slight risk of swarms arriving from the interior of the Arabian Peninsula in June and July.*

**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 May, small-scale breeding continued on the southeast coast near Chabahar (2517N/6036E) on the Vashnam Plains and near Zaribad (2536N/5921E). In both areas, solitary and *transiens* hoppers of all instars were present in numerous places at densities of 5-60 hoppers/m<sup>2</sup> as well as groups of fledglings and *transiens* immature and mature adults at densities of 300-2,000 adults/ha. Ground teams treated 4,705 ha during May.

• FORECAST

*A few small adult groups and swarms could form on the southeast coast. If cyclone Gonu affects coastal areas, these adults may remain, mature and lay eggs, or they could move east towards the Indo-Pakistan border. There is a slight risk of swarms arriving from the interior of the Arabian Peninsula in June and July.*

**Pakistan**

• SITUATION

During the first half of May, there was an increase in locust populations as small-scale breeding continued in the spring breeding area in Baluchistan. Second to fourth instar hoppers were present along the coast between Pasni (2515N/6328E) and Uthal (2548N/6637E), and scattered immature and mature solitary adults at densities up to 3,500 adults/ha were seen at 50 places along the coast and further inland near Panjgur (2658N/6406E). Infestations were also reported in northern Baluchistan near Kharan (2832N/6526E) and in the summer breeding areas east of Sukkur (2742N/6854E).



No. 344



No. 344

## DESERT LOCUST BULLETIN

During the second half of May, medium density third to fifth hopper bands formed near Ormara (2512N/6438E). Solitarious hoppers and maturing adults persisted near Gwadar (2508N/6219E) and Uthal. Most of the maturing adults near Uthal were forming groups at densities of up to 1 adult/m<sup>2</sup>. Scattered adults were also present near Panjgur (2658N/6406E). Ground control teams treated 1,806 ha during May.

### • FORECAST

*Small groups of adults and perhaps a few small swarms are likely to form in Baluchistan and move to the summer breeding areas of Cholistan and Tharparkar and lay eggs with the onset of the monsoon rains. Breeding this summer is expected to be on a larger scale than in previous years. There is a slight risk of a few swarms arriving in Tharparkar from the Arabian Peninsula or Horn of Africa after mid-June.*

### India

#### • SITUATION

During the first week of May, ground control teams treated 180 ha of high numbers of third to fifth instar hoppers, fledglings and immature and mature adults that were present at 14 places northwest of Sam (2649N/7030E) near the Pakistani border. By mid-month, only scattered solitarious mature adults were reported at three places. No locusts were seen elsewhere in Rajasthan.

#### • FORECAST

*Locust numbers will increase in Rajasthan as low to moderate numbers of adults arrive from the west and lay eggs with the onset of the monsoon rains. Consequently, summer breeding is likely to be on a larger scale than in previous years. There is a slight risk of a few swarms arriving in Rajasthan from the Arabian Peninsula or Horn of Africa after mid-June.*

### Afghanistan

#### • SITUATION

No reports received.

#### • FORECAST

*No significant developments are likely.*



## Announcements

**Locust reporting.** During recession periods, countries should report at least once/month and send RAMSES data with a brief interpretation. During caution (yellow) periods, locust outbreaks, upsurges and plagues, RAMSES output files with a brief interpretation should be sent twice/week and affected countries are encouraged to prepare decadal bulletins summarizing the situation. All information should be sent by e-mail to the FAO/ECLD Desert Locust Information Service (eclod@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.

**eLocust2.** FAO has developed a new version of eLocust2 in collaboration with affected countries and the French Space Agency (CNES/Novacom) that allows field officers to enter survey and control data directly in the field and transmit it in real time via satellite to their national locust centre. Data can also be downloaded to a PC and visualized on GoogleEarth. The software is in both English and French. FAO DLIS has distributed units to nearly all of the frontline countries. Photos and more information are available at: [www.fao.org/ag/locusts/en/activ/DLIS/index.html](http://www.fao.org/ag/locusts/en/activ/DLIS/index.html)

**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.

**EMPRES/CRC website.** Detailed information on EMPRES/CR and the FAO Central Region Commission as well as member country profiles can be found on the new EMPRES/CRC website at: [www.crc-empres.org](http://www.crc-empres.org).

**MODIS imagery.** Columbia University's International Research Institute for Climate and Society (IRI) has started to provide 16-day 250-metre resolution MODIS imagery for monitoring ecological conditions in the Desert Locust recession area, in addition to the daily rainfall estimates already available. These products can be downloaded in different formats suitable for GIS at: [http://iridl.ideo.columbia.edu/maproom/.Food\\_Security/](http://iridl.ideo.columbia.edu/maproom/.Food_Security/).

Locusts/index.html. Comments and questions can be addressed to Pietro Ceccato (pceccato@iri.columbia.edu).

**New information on Locust Watch.** DLIS launched a new initiative in October called *Desert Locust e-info news* as a means of keeping everyone informed on a weekly basis of new information on the Locust Group's web page, Locust Watch ([www.fao.org/ag/locusts](http://www.fao.org/ag/locusts)). The latest additions are:

- **Yemen outbreak.** Recent photos of rain and locust infestations in the interior of Yemen.
- **DLCC session reports.** Archived reports of all the sessions from 1955 to the present.
- **Locust situation.** Several updates during May
- **CLCPRO.** Report of the 3<sup>rd</sup> Executive Committee meeting (French)
- **EMPRES/WR.** Report of the 2<sup>nd</sup> Session of the Steering Committee (French)
- **Iran/Pakistan Joint Border survey.** Report of survey carried out in April 2007 (English)

Links to the above information can be found in the new *Latest Additions* section on Locust Watch.

**2007 events.** The following meetings are scheduled:

- **CLCPRO.** 4<sup>th</sup> sessions of the Executive Committee and CLCPRO, Bamako (Mali), postponed
- **EMPRES/WR.** 6<sup>th</sup> Liaison Officers Meeting (26-30 November) and 3<sup>rd</sup> Steering Committee (3-4 December), Agadir (Morocco)



## 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.



No. 344

DESERT LOCUST BULLETIN



No. 344

## DESERT LOCUST BULLETIN

---

### **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.

#### **RED**

- Danger. Significant threat to crops. Intensive survey and control operations must be undertaken.

### **REGIONS**

#### **WESTERN**

- locust-affected countries in West and North-West Africa: Algeria, Chad, Libya, Mali, Mauritania, Morocco, Niger, Senegal, Tunisia; during plagues only: Burkino Faso, Cape Verde, Gambia, Guinea and Guinea-Bissau.

#### **CENTRAL**

- locust-affected countries along the Red Sea: Djibouti, Egypt, Eritrea, Ethiopia, Oman, Saudi Arabia, Somalia, Sudan, Yemen; during plagues only: Bahrain, Iraq, Israel, Jordan, Kenya, Kuwait, Qatar, Syria, Tanzania, Turkey, UAE and Uganda.

#### **EASTERN**

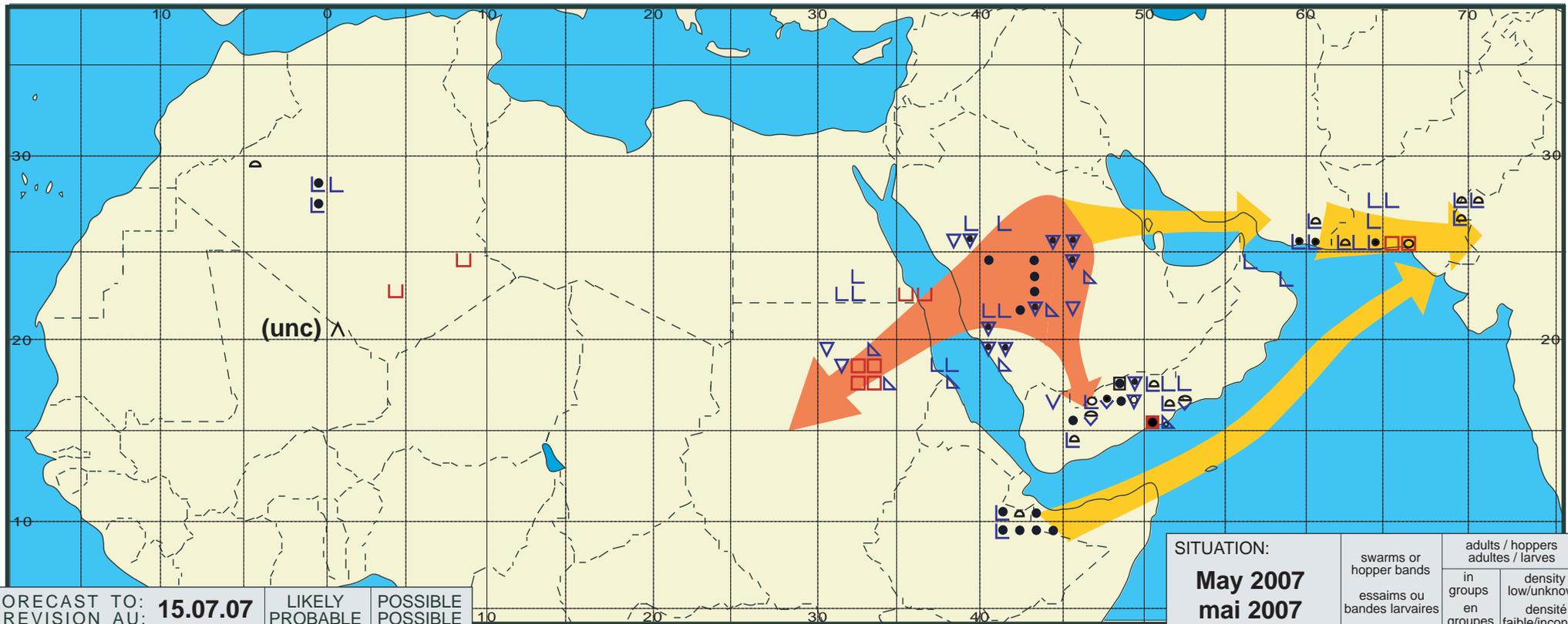
- locust-affected countries in South-West Asia: Afghanistan, India, Iran and Pakistan.



# Desert Locust Summary

## Criquet pèlerin - Situation résumée

344



FORECAST TO: PREVISION AU: <b>15.07.07</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>May 2007</b> <b>mai 2007</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)			