

warning level: **CAUTION**

DESERT LOCUST BULLETIN

FAO Emergency Centre for Locust Operations



No. 355

(5 May 2008)



**General Situation during April 2008
Forecast until mid-June 2008**

The Desert Locust situation was generally calm during April except for Ethiopia, Saudi Arabia and Iran. In Ethiopia, swarms persisted in the south and seasonal rains began in the Ogaden region in the east where the swarms are likely to move and lay eggs. Small hopper groups and bands formed in the interior of Saudi Arabia and in southeast Iran from egg laying in March. Control operations were carried out in both countries but there is a moderate risk that a few small group or swarms could form in May. Intensive survey and control efforts should continue in Ethiopia, Saudi Arabia and Iran during the forecast period. Elsewhere, limited control operations were undertaken in Sudan, Algeria and Mauritania where local breeding occurred.

Western Region. The situation remained calm during April. Small-scale breeding caused locust numbers to increase in southern Algeria and ground teams treated 1,150 ha of hoppers and adults that were forming small groups. Local breeding continued in northwest Mauritania and small groups of hoppers were treated with a bio-pesticide. During the forecast period, low numbers of adults are expected to move towards the summer breeding areas in southern Mauritania, northern Mali and northern Niger where they will mature and lay eggs once the summer rains begin. There is a moderate risk that breeding could start this summer as soon as late May or early June if rains fall in western and central Mauritania.

Central Region. Immature swarms continued to persist in southern Ethiopia. Although it is not clear how many swarms are present, some of the adults have matured and may be ready to lay eggs. Most of the swarms are expected to move to the Ogaden and lay eggs as seasonal rains started in mid-April and ecological conditions are improving. Consequently, some hopper bands could form in May. In northern Sudan, local breeding occurred in crops in the Nile Valley and ground teams treated 44 ha. Scattered adults were also present in southwest Egypt. Dry conditions prevailed in the winter breeding areas along both sides of the Red Sea and no locusts were reported. In Saudi Arabia, hatching and band formation may occur on other farms on the northern edge of the Empty Quarter that, if not controlled, could lead to the formation of small adult groups or swarms. In northern Oman, local breeding occurred in the interior near UAE. No locusts were seen during surveys in Eritrea, northern Somalia and Yemen.

Eastern Region. As conditions are drying out in southeastern Iran, breeding will end on the coast and in the interior. Adults could form a few small groups during the forecast period that are likely to move east towards the summer breeding areas on both sides of the Indo-Pakistan border. In western Pakistan, very little breeding occurred during the spring because of poor rainfall. No locusts were present in India.

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.

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

Facsimile: +39 06 570 55271

E-mail: eclo@fao.org

Internet: www.fao.org

DLIS: www.fao.org/ag/locusts



No. 355

Mauritania	10 ha (April)
Saudi Arabia	49 ha (April)
Sudan	44 ha (24-27 April)

DESERT LOCUST BULLETIN



Weather & Ecological Conditions in April 2008

No significant rain fell in the recession area during March. Consequently, vegetation was dry and conditions were generally unfavourable for breeding except along the coast and in the interior of southeastern Iran.

In the **Western Region**, no significant rain fell and dry conditions prevailed during April. Isolated showers may have fallen in parts of northwest Libya during the first decade of April.

In the **Central Region**, seasonal rains commenced in mid-April in eastern Ethiopia where light to moderate showers fell in parts of the Ogaden region but vegetation remained dry. Dry conditions prevailed in adjacent areas in northern Somalia. Vegetation remained dry in the winter breeding areas along both sides of the Red Sea except near Shelshela and Karora in Eritrea where low-density green vegetation was present. In the summer breeding areas in the interior of Sudan, light rain fell in parts of the Eastern Region near Kassala and in southern areas of Kordofan. No significant rainfall was reported in the Arabian Peninsula where dry conditions prevailed. Vegetation was dry or drying out in the spring breeding areas in northern Oman.

In the **Eastern Region**, light to moderate rains fell in the summer breeding areas along both sides of the Indo-Pakistan border during the first decade of April but ecological conditions remained unfavourable for breeding. In Rajasthan (India), Bikaner reported 48 mm, Barmer 29 mm and Jodhpur 17 mm. In the absence of any significant rainfall, vegetation was drying out and breeding conditions were becoming unfavourable in the spring breeding areas in southeastern Iran and western Pakistan.



Area Treated

Algeria	1,150 ha (April)
Iran	1,100 ha (March, updated) 228 ha (5-15 April)



Desert Locust Situation and Forecast

(see also the summary on page 1)

WESTERN REGION

Mauritania

• SITUATION

During April, scattered solitary and *transiens* hoppers of all instars mixed with immature and mature solitary adults persisted in southwest Adrar. Most of the locusts were present in cropping areas in the valleys of Kediet Imert south of Oujeft (2003N/1301W). Although locust numbers gradually declined, hoppers were forming small groups at densities up to 12 hoppers/m². Some of the adults were laying eggs. Ground teams treated nearly 4 ha with Green Muscle and mechanical control was undertaken on about 10 ha.

• FORECAST

Local breeding will continue in southwest Adrar where hatching will occur during May, and hoppers and adults may form a few small groups. By the end of the forecast period, scattered adults are likely to appear in the summer breeding areas in the south and lay eggs once seasonal rains commence. There is a moderate risk that breeding could commence earlier than normal this year if good rains fall in the west in May or June.

Mali

• SITUATION

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

• FORECAST

Scattered locusts are likely to be present and will persist in parts of the Adrar des Iforas.

Niger

• SITUATION

During April, scattered immature solitary adults mixed with African Migratory Locusts were present in irrigated areas near Arlit (1843N/0721E).

• FORECAST

Low numbers of locusts are likely to be present and will persist in parts of the Air Mountains and near Arlit. Limited breeding could take place if conditions become favourable.

Chad

• SITUATION

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

• FORECAST

No significant developments are likely.

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, small-scale breeding caused locust numbers to increase in the Ahnet area northwest of Tamanrasset (2250N/0528E). Solitary and *transiens* hoppers and immature solitary adults were present at several places and, in some cases, forming small groups at densities of up to 5 hoppers/m² and 3,000 adults/ha. Ground teams treated 1,150 ha. No locusts were seen elsewhere in the central or southern Sahara except for isolated immature solitary adults near Djanet (2434N/0930E).

• FORECAST

Breeding is unlikely to continue in the Sahara unless further rains fall but low to moderate numbers of adults may persist near Tamanrasset and, to a lesser, near Adrar, In Salah, Djanet and Illizi.

Morocco

• SITUATION

During April, isolated immature solitary adults were present at one location south of the Atlas Mountains in the Ziz Valley near the Algerian border at Taychoutine (3053N/0405W).

• FORECAST

No significant developments are likely.

Libyan Arab Jamahiriya

• SITUATION

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

• FORECAST

Scattered adults may be present in the southwest near Ghat and could breed on a limited scale if rains fall. Low numbers of adults may persist in the southeast.

Tunisia

• SITUATION

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

• FORECAST

No significant developments are likely.

CENTRAL REGION

Sudan

• SITUATION

No locusts were seen during surveys carried out on the Red Sea coastal plains between the Tokar Delta and the Eritrean border in the first half of April. In the Nile Valley, small-scale breeding occurred in irrigated crops in one area between Dongola (1910N/3027E) and the Egyptian border where moderate numbers of solitary and *transiens* hoppers of all instars and immature adults formed small groups. Ground teams treated 44 ha during the last week of the month.

• Forecast

Small-scale breeding and low to moderate numbers of locusts are likely to persist in crops in the Nile Valley in the north. Low numbers of adults could appear by the end of the forecast period in the summer breeding areas near Kassala and in North Kordofan and breed on a small scale in areas that receive rainfall.

Eritrea

• SITUATION

No locusts were seen during a survey on the Red Sea coastal plains between Massawa (1537N/3928E) and the Sudanese border on 3-6 April.

• FORECAST

Low numbers of adults could appear by the end of the forecast period in the western lowlands and breed once seasonal rains commence.

Ethiopia

• SITUATION

During April, a few small immature swarms persisted in the southern Rift Valley near Konso (0520N/3726E). Some of the adults had become mature by mid-month. Surveys continued to be hampered by the rugged terrain and the highly mobile swarms. Further north, isolated solitary immature adults were seen in the railway area between Dire Dawa (0935N/4150E) and the Djibouti border.



No. 355

DESERT LOCUST BULLETIN



No. 355

DESERT LOCUST BULLETIN

• FORECAST

Small swarms from the south are likely to appear in the Ogaden and lay eggs in areas of recent rainfall. Hatching is expected to occur in May and give rise to small hopper bands. There is a moderate risk that some adults could remain in the south and lay eggs near Konso that could cause small hopper bands to form in May.

Djibouti

• SITUATION

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

• FORECAST

No significant developments are likely.

Somalia

• SITUATION

No reports were received during April.

• FORECAST

There is a low to moderate risk that a few swarms may appear from Ethiopia on the plateau and along the escarpment.

Egypt

• SITUATION

A late report indicated that scattered immature and mature solitary adults were present in the southwest near Jebel Uweinat (2154N/2458E) in Karkur Talh and K. Murr, and on the northern and eastern sides of the Gilf Kebir Plateau in Wadi Hamra (ca. 2350N/2527E) and W. Bakht (ca. 2312N/2625E) in March. The highest concentration of adults was seen in W. Hamra.

During the first half of April, no locusts were seen during surveys carried out on the Red Sea coast near Shalatyn (2308N/3535E) and in the Western Desert near Sh. Oweinat (2219N/2845E).

• FORECAST

Small-scale breeding could occur in the southwest near Jebel Uweinat and the Gilf Kebir Plateau.

Saudi Arabia

• SITUATION

During April, hatching occurred on a few farms on the northwest edge of the Empty Quarter near Yabreen (2313N/4856E) where swarms laid eggs in March. Consequently, 33 small medium to high-

density first instar hopper bands were reported in four farms and 49 ha were treated.

• FORECAST

Hatching and band formation may occur early in the forecast period on other farms near Yabreen. Intensive surveys should be conducted. Small groups or perhaps a few swarms could form from infestations that are not controlled.

Yemen

• SITUATION

No locusts were seen during surveys carried out on the Red Sea coast and on the Gulf of Aden coastal plains on 10-16 April.

• FORECAST

No significant developments are likely.

Oman

• SITUATION

During April, small-scale breeding occurred in the northern interior near Buraimi (2415N/5547E) and the UAE border where isolated third to sixth instar solitary hoppers mixed with immature and mature solitary adults were present at two places. No locusts were seen on the Batinah coast.

• FORECAST

Locust numbers will decline and 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

During April, locust numbers increased in the spring breeding areas in the southeastern regions of Hormozgan and Sistan-Baluchistan. By mid-month, third and fourth instar hoppers had formed groups at densities of up to 50 hoppers/m² on the southern coast between Minab (2708N/5705E) and Jask (2540N/5746E). Small-scale breeding occurred further east on the coast between Chabahar (2517N/6036E) and the Pakistani border where first and second instar hoppers formed small groups. Ground teams in both areas treated 228 ha on 5-15 April. Scattered mature solitary adults were also present near Chabahar and some adults were copulating on the 3rd on the Vashnum Plains. In the interior, breeding occurred on the southern edge of the Jaz Murian Basin (ca. 2706N/5853E) and in the valleys near Suran (2717N/6159E) and Zaboli (6140N/2707E) where

medium-density small hopper bands formed mixed with solitary hoppers and mature adults.

• **FORECAST**

Breeding will end on the coast between Minab and Chabahar unless further rains fall. Nevertheless, immature adults could form a few small groups in May on the coast near Minab and Chabahar and in the interior near Jaz Murian and west of Saravan. As vegetation dries out, these adults are likely to move east towards the Indo-Pakistan border.

Pakistan

• **SITUATION**

During the first half of April, low numbers of immature and mature solitary adults were present in the spring breeding areas of Baluchistan in the interior near Kharan (2832N/6526E). Small-scale breeding occurred east of Nokkundi (2849N/6244E). No locusts were seen further south in the interior or along the coast except for a few mature solitary adults that persisted near Uthal (2548N/6637E).

• **FORECAST**

Locust numbers will decline in the spring breeding areas in Baluchistan as vegetation dries out. By the end of the forecast period, scattered adults are likely to appear in the summer breeding areas in Tharparkar, Khipro and Cholistan and breed with the onset of the monsoon rains.

India

• **SITUATION**

No locusts were seen during surveys carried out in Rajasthan during April.

• **FORECAST**

Scattered adults are likely to appear in Rajasthan by the end of the forecast period and breed with the onset of the monsoon rains.

Afghanistan

• **SITUATION**

No reports received.

• **FORECAST**

No significant developments are likely.

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.

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.

Climate change. Potential impacts of climate change on Desert Locust are under discussion. More details can be found on Locust Watch in the Activities section (<http://www.fao.org/ag/locusts/en/activ/index.html>).

Google group. FAO DLIS has established a Google group for national locust information officers to exchange opinions and share experiences regarding data management and analysis, GIS, eLocust2 and satellite imagery. Interested information officers should contact DLIS (eclo@fao.org) for details.

MODIS imagery. Columbia University's International Research Institute for Climate and Society (IRI) provides 16-day 250-metre resolution MODIS imagery as well as daily and decadal rainfall imagery for monitoring breeding conditions in the Desert Locust recession area. These products can be downloaded in different formats suitable for GIS at: http://iridl.ldeo.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. Recent additions to the web site are:

- **Locust risk.** The current risk map was updated (home page)



Announcements

Locust reporting. During recession periods, countries should report at least once/month and send RAMSES data with a brief interpretation. During caution (yellow) and threat (orange) periods, locust outbreaks, upsurges and plagues, RAMSES output files with a brief interpretation should be sent at least twice/week within 48 hours of the last survey. Affected countries are also encouraged to prepare



No. 355

DESERT LOCUST BULLETIN



No. 355

DESERT LOCUST BULLETIN

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

2008 events. The following activities are scheduled:

- **CRC.** Sub-regional training course, UAE (24 May – 3 June)
- **CRC.** 26th Session and 30th Executive Committee meeting, Muscat (26-30 July)
- **CLCPRO.** 5th Executive Committee meeting, Ouagadougou (20-22 October, to be confirmed)
- **EMPRES/WR.** 7th Liaison Officers meeting, Niamey (24-28 November, to be confirmed)
- **EMPRES/WR.** 4th Steering Committee meeting, Niamey (1-3 December, to be confirmed)
- **SWAC.** 26th Session, Kabul (15-17 December, to be confirmed)



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 km² • band: 1 - 25 m²

SMALL

- swarm: 1 - 10 km² • band: 25 - 2,500 m²

MEDIUM

- swarm: 10 - 100 km² • band: 2,500 m² - 10 ha

LARGE

- swarm: 100 - 500 km² • band: 10 - 50 ha

VERY LARGE

- swarm: 500+ km² • 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.



No. 355

DESERT LOCUST BULLETIN

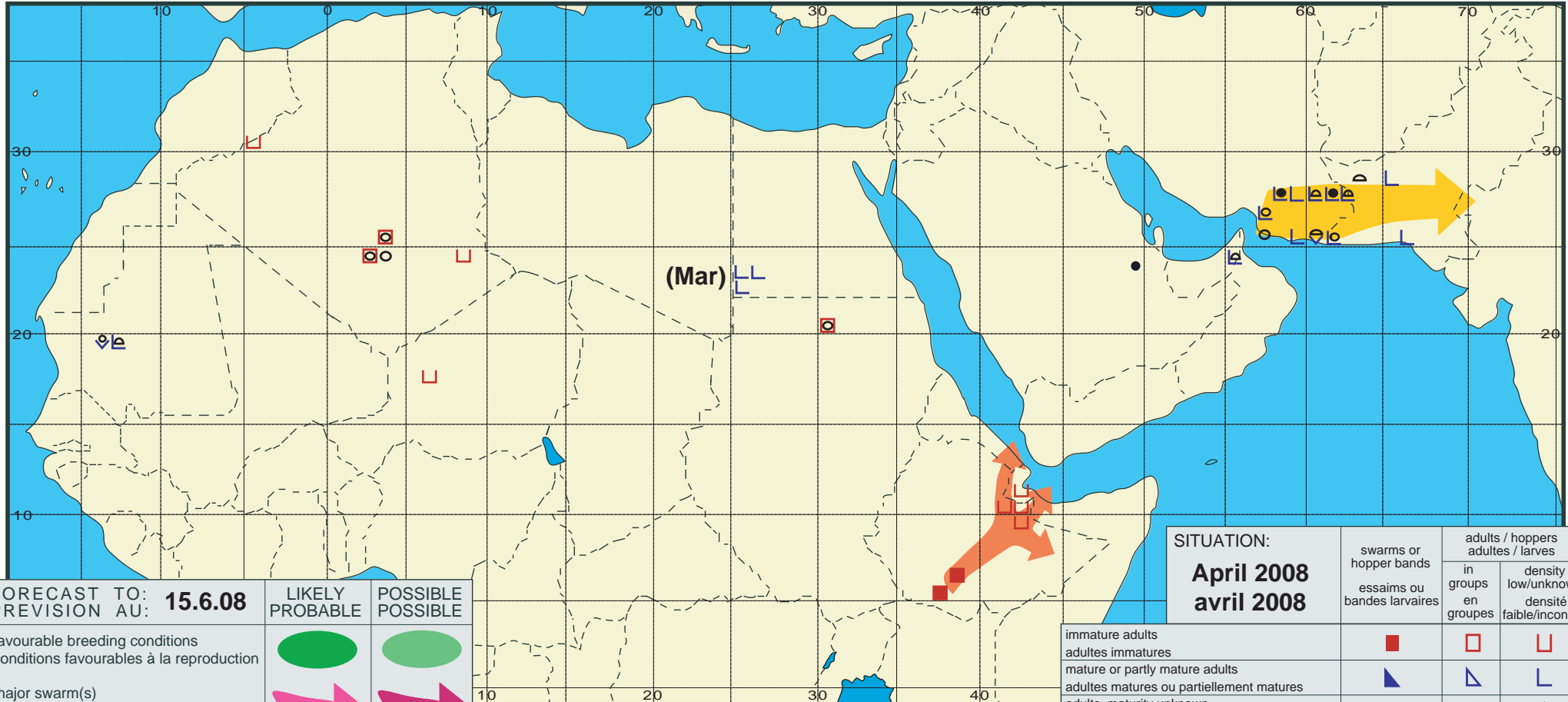
page 7 of 8



Desert Locust Summary

Criquet pèlerin - Situation résumée

355



FORECAST TO: PREVISION AU:	15.6.08	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: April 2008 avril 2008	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)			