

warning level: **CAUTION**

DESERT LOCUST BULLETIN

FAO Emergency Centre for Locust Operations



No. 404



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

(4 June 2012)

The Desert Locust outbreak that developed in early February along the Algerian-Libyan border continued during May. Immature swarms formed in both countries where control efforts increased in order to limit damage to crops and pastures and to reduce the number of locusts moving south to the Sahel. So far, only a few adult groups have moved to southern Algeria and one group reached northern Niger. Nevertheless, countries must be on high alert and prepare themselves for more adult groups and a few small swarms to arrive in northern Niger, Mali and Chad during June. There is a high risk that locusts will settle in cropping areas. Elsewhere, local breeding caused hoppers to form small groups in central Oman. Small-scale breeding will commence in the summer breeding areas in Sudan and along both sides of the Indo-Pakistan border but locust numbers will remain low.

Western Region. Hopper bands began fledging and groups of immature adults formed in southwest Libya and southeast Algeria during the first week of May. By mid-month, several high-density immature swarms of up to 5 km² in size were reported. Since the beginning of the outbreak, more than 41,000 ha have been treated in Algeria (31,000 ha in May) and 21,000 ha in Libya (11,000 ha in May). As vegetation began to dry out, a limited number of adult groups moved south during the last week of May to southern Algeria and one group arrived in northern Niger at the end of

the month. More immature adult groups and swarms are expected to form in June and move south to Niger and, to a lesser extent, to Mali and Chad. The adults will settle in cropping areas and in places that recently received rain in the northern Sahel. There is a high risk that some adults will overfly these areas and continue south into the main cropping zones of the Sahel. Adults will mature and breeding is expected to commence by July. In Mauritania, the risk of adult groups or swarms arriving from the Algerian-Libyan outbreak area is lower; instead, low numbers of adults will appear in the south and breed on a small scale with the onset of the seasonal rains.

Central Region. No locusts were reported in the region during May except for hopper groups and scattered adults in central Oman as a result of local breeding during April and May. Small groups of immature adults may form and move to northeastern Oman and breed on a small scale during June in areas of recent rainfall. In Sudan, small-scale breeding is expected to commence in the summer breeding areas of the interior during the forecast period but locust numbers will remain below threatening levels.

Eastern Region. No reports were received from the Region in May except for India where no locusts were seen during regular surveys. Low numbers of locusts may be present and breeding on a small scale in parts of the spring breeding areas in western Pakistan where good rains fell in May. Locust numbers will decrease as adults appear in the summer breeding areas in Cholistan and Tharparkar, Pakistan and Rajasthan, India. Small-scale breeding will commence with the onset of the monsoon rains in July.

The FAO Desert Locust Bulletin is issued every month by the Desert Locust Information Service, AGP Division (Rome, Italy). It is supplemented by Alerts and Updates during periods of increased Desert Locust activity. All products are distributed by e-mail and are available on the Internet.

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No. 404

DESERT LOCUST BULLETIN



Weather & Ecological Conditions in May 2012

Early pre-season rains fell in the northern Sahel from Mali to Sudan, on the plateau in northern Somalia and in parts of the spring breeding areas in western Pakistan and southeastern Iran. Consequently, ecological conditions will improve in most of these areas.

In the **Western Region**, the Inter-Tropical Convergence Zone (ITCZ) continued its northward movement over West Africa during May. By the end of the second decade, the ITCZ had reached central Mali (Nara-Gao-Menaka), central and southern Niger (Tchin-Zinder-Diffa) and central Chad (Mao-S. Abeche). Pre-season rains fell north of the ITCZ during the second half of May in the northern Sahel of Mali, Niger and Chad. In northern Mali, light to moderate rain occurred in Timetrine, the Adrar des Iforas and Tamesna. In Niger, light to moderate rain fell in Tamesna, the Air Mountains, and in the Sahelian zone south of Tahoua, between Maradi and Termit, and near Zinder. Light rain also fell further north in southern Algeria between Tamanrasset and In Guezzam. Heavier showers fell at the end of the month in the extreme northeast of Niger on the Djado Plateau, extending into southern Libya and northern Chad, including Tibesti. Light rain fell in eastern Chad between Arada and Iriba. Although ecological conditions were dry and unfavourable for breeding in May, they are likely to improve during June. In North-West Africa, vegetation started to dry out along both sides of the border in southeast Algeria and southwest Libya but remained green in some areas. Light showers fell in southeast Libya near Jebel Uweinat.

In the **Central Region**, early pre-season rains fell in parts of the summer breeding areas in the interior of Sudan during the last decade of May. Light rain fell in the Baiyuda Desert, in North Kordofan (Hamrat Esh Sheikh to Umm Saiyala), and the southern portion of North Darfur while heavier rains fell in West Darfur. Light rain fell in southwest Egypt from Jebel Uweinat to Dakhla Oasis. In the Horn of Africa, light rains fell at times during the first two decades of May on the plateau in northern Somalia and in adjacent areas in eastern Ethiopia. In the Arabian Peninsula, light rain

fell at the end of the month in some places along the Red Sea coast in Yemen. In northeast Oman, light showers fell in the Sharqiya region where good rains fell in mid-April. Consequently, ecological conditions may be favourable for breeding. Elsewhere, dry conditions prevailed in the Region.

In the **Eastern Region**, good rains fell in the central interior of Baluchistan in western Pakistan and southeastern Iran during the first decade of May, and continued in Pakistan during the second decade. Consequently, ecological conditions are expected to be favourable for late breeding in the Turbat, Panjgur and Lasbela areas in Pakistan. The seasonal monsoon had nearly reached the southern tip of India (Kerala) at the end of May but is not expected to reach Rajasthan until the first week of July.



Area Treated

Algeria	7,987 ha (April, revised)
	31,201 ha (May)
Libya	4,460 ha (April, revised)
	10,910 ha (May)



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 May.

• FORECAST

There is a low risk that a few small adult groups or swarms could arrive from the east and northeast and continue towards cropping areas in the south where breeding could eventually take place. Otherwise, low numbers of adults will appear in the south and breed on a small scale with the onset of the seasonal rains.

Mali

• SITUATION

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

• FORECAST

There is a moderate to high risk that small groups of adult and a few swarms will arrive from the northeast in areas of recent rainfall in Tamesna, Adrar des Iforas and Timetrine. Some populations may continue south to cropping areas. Upon arrival, the adults will mature and breeding is expected to commence during July.

Niger

• SITUATION

On 30 May, a group of adults was reported in the north near Arlit (1843N/0721E), arriving from the north. More details are awaited.

• FORECAST

There is a high risk that small groups of adult and a few swarms will arrive from the north in areas of recent rainfall in the Tamesna, Air Mountains and the Djado Plateau. Some populations may continue south to cropping areas in the Sahel zone. Upon arrival, the adults will mature and breeding is expected to commence during July.

Chad

• SITUATION

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

• FORECAST

There is a low to moderate risk that a few small groups of adults or swarms could arrive in Tibesti from the northwest and continue towards cropping areas where adults will mature and breed.

Senegal

• SITUATION

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

• 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 May, second generation egg laying, hatching and band formation continued in the northern part of the outbreak area near Illizi (2630N/0825E). Adults were last seen laying on the 3rd north of Illizi. Further south, most of the late instar hopper bands had fledged by mid-month. Groups of immature adults were first reported on the 6th and immature swarms up to 2 km² in size were seen on 12-18 May. Thereafter only immature groups were reported, including several groups moving south from Bordj El Haoues (2452N/0826E) towards Tamanrasset (2250N/0528E) on 23-26 May. Ground teams treated 31,201 ha in May. No locusts were seen near Adrar (2753N/0017W) and In Salah (2712N/0229E).

• FORECAST

Immature groups and swarms will continue to form in June and probably remain in the southeast

until vegetation dries out. Thereafter, they will move south towards the northern Sahel in West Africa. If a few groups or swarms remain in the area, they could mature during June and lay eggs from the end of the month onwards in those areas that remain favourable, with hatching commencing in July.

Morocco

• SITUATION

During May, isolated immature and mature solitary adults persisted in the northeast near Bouarfa (3232N/0159W).

• FORECAST

No significant developments are likely.

Libya

• SITUATION

During May, second generation egg-laying, hatching and band formation continued in the northern part of the outbreak area near Ghadames (3010N/0930E) and on the southern Al Hamada Al Hamra plateau, and late instar hopper bands were present near Ghat (2459N/1011E). By the second week, fledging commenced and immature adults formed groups at densities up to 800 adults/m². On the 19th, the first immature swarm was reported near Ghat. More medium and high density swarms up to 5 km² in size formed during the remainder of the month. Ground teams treated 10,910 ha in May.

• FORECAST

Immature groups and swarms will continue to form in June and probably remain in the west and southwest until vegetation dries out. Thereafter, they will move south towards the northern Sahel in West Africa. If a few groups or swarms remain in the area, they could mature during June and lay eggs from the end of the month onwards in those areas that remain favourable, with hatching commencing in July.

Tunisia

• SITUATION

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

• FORECAST

No significant developments are likely.



No. 404



No. 404

DESERT LOCUST BULLETIN

CENTRAL REGION

Sudan

• **SITUATION**

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

• **FORECAST**

Low numbers of adults are likely to appear in parts of the summer breeding areas in the interior and breed on a small scale in areas of recent rainfall and in those areas that receive rain during the forecast period. Consequently, locust numbers will increase slightly but remain below threatening levels.

Eritrea

• **SITUATION**

During May, isolated mature solitary adults were seen on the central Red Sea coast near Shelshela (1553N/3906E).

• **FORECAST**

No significant developments are likely.

Ethiopia

• **SITUATION**

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

• **FORECAST**

No significant developments are likely.

Djibouti

• **SITUATION**

No reports were received during May.

• **FORECAST**

No significant developments are likely.

Somalia

• **SITUATION**

No reports were received during May.

• **FORECAST**

Isolated adults may appear on the plateau in areas of recent rainfall and breed on a small-scale. No significant developments are likely.

Egypt

• **SITUATION**

No reports were received during May.

• **FORECAST**

No significant developments are likely.

Saudi Arabia

• **SITUATION**

During May, no locusts were seen during surveys in the Asir Mountains east of Thuwal (2215N/3906E) and in the interior.

• **FORECAST**

No significant developments are likely.

Yemen

• **SITUATION**

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

• **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.

Oman

• **SITUATION**

During May, small-scale breeding occurred in a few places in Sharqiya near Ibra where first and second instar solitary hoppers were present. Mature solitary and transiens adults were seen on the eastern and western edges of the Wahiba sands and on the coast south of Ras Al Hadd (2232N/5947E). In the central region (Wusta) between Hayma (1957N/5616E) and the coast at Duqm (1939N/5743E), groups of fifth instar *transiens* and gregarious hoppers were present in the Sarab area from earlier undetected breeding. Isolated hopper and adults were seen further south near Marmul (1808N/5516E).

• **FORECAST**

An increasing number of small groups of immature adults are likely to form in the Wusta Region that will probably move towards the northeast.

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 reports were received during May.

• **FORECAST**

No significant developments are likely.

Pakistan

• **SITUATION**

No reports were received during May.

• **Forecast**

Low numbers of locusts may be present and breeding on a small-scale in areas of recent rainfall

in the central interior near Turbat and Panjgur. Locust numbers will decrease in the spring breeding areas in Baluchistan as low numbers of solitarious adults appear in the summer breeding areas in Cholistan and Tharparkar.

India

• SITUATION

No locusts were seen during surveys carried out in Rajasthan and Gujarat in May.

• FORECAST

Low numbers of locusts will appear in Rajasthan. Small-scale breeding will occur once the monsoon rains commence in July.

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/ECLC Desert Locust Information Service (eclc@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)
- **MODIS.** Daily rainfall imagery in real time (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)
- **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>)
- **FAOLOLUST 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) are:

- **Desert Locust situation updates.** Archives Section – Briefs
- **Libya outbreak.** Information Section
- **Desert Locust Information Officer Workshop reports.** Publications Section – Reports
- **Desert Locust Information Officer Workshops.** Activities Section – DLIS
- **DLIS Questionnaire.** Activities Section – DLIS
- **Iran/Pakistan 2012 Joint Survey report.** Publications Section – Reports



No. 404

DESERT LOCUST BULLETIN

page 5 of 8



No. 404

DESERT LOCUST BULLETIN

2012 events. The following activities are scheduled or planned:

- **DLCC.** 40th Session, Rome (18-22 June)
- **CLCPRO/EMPRES-WR.** Western Region Locust Information Officer workshop, Dakar (15-17 July, tbc)
- **SWAC.** 28th Session, New Delhi, India (December, tbc)



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. 404

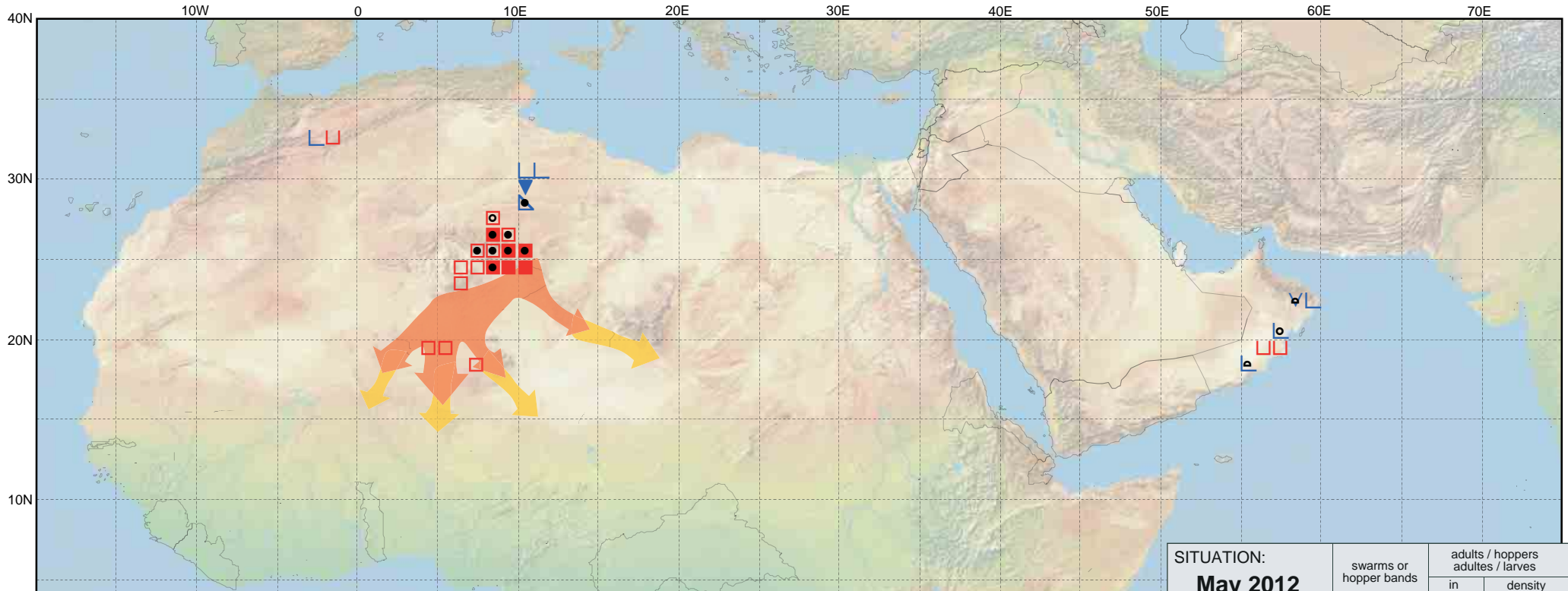
DESERT LOCUST BULLETIN

page **7** of 8



Desert Locust Summary

Criquet pèlerin - Situation résumée



FORECAST TO: PREVISION AU:	15.07.12	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: May 2012 mai 2012	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)			