

warning level: **THREAT**

DESERT LOCUST BULLETIN

FAO Emergency Centre for Locust Operations



No. 405



**General Situation during June 2012
Forecast until mid-August 2012**

(3 July 2012)

The Desert Locust situation remained serious during June as adult groups and small swarms migrated from the outbreak area along both sides of the Algerian-Libyan border to the northern Sahel in Mali and Niger where rains have fallen about six weeks earlier than normal. Survey and control teams were mobilized in Niger but were limited by insecurity and a shortage of funds. Similarly, operations could not be carried out in northern Mali where locals reported small swarms. Breeding will occur in northern Mali and Niger, giving rise to hopper groups and bands in July and adult groups and swarms in August. Unless controlled, the infestations will continue to increase and threaten crops and pastures. Depending on rainfall and control operations, a second generation could occur in September, leading to a substantial increase in locust numbers. Consequently, the situation is potentially dangerous. Elsewhere, the situation remained calm during June and no significant developments are expected during the forecast period.

Western Region. As vegetation dried out along both sides of the Algerian-Libyan border, adults formed small groups and swarms in inaccessible areas and moved south to northern Niger and northern Mali during the first half of June. Some adults were mature and ready to lay eggs. Most of the groups and swarms remained in the north but a

few groups reached pasture areas in central Niger and started to lay eggs. Although there were no reports of locusts in Chad, there is a possibility that a few groups may have reached northern areas of the country. A few adults were reported in southeast Mauritania. Control teams in Niger treated 960 ha. Control operations ended in Algeria, treating 42,140 ha since January of which 987 ha were in June. No locusts were reported after mid-June in Libya where 21,400 ha were treated from February to the end of May. During the forecast period, hatching will occur in Mali and Niger during July, causing hopper groups and bands to form and giving rise to adult groups and swarms in August. Small-scale breeding is expected to take place in Mauritania and Chad. All efforts are required to conduct the necessary survey and control operations.

Central Region. No locusts were seen in the region during June except for small hopper and adult infestations in northeastern Oman, where light damage was reported on crops and date palms. Small-scale breeding will occur during the forecast period in the interior of Sudan and western Eritrea, causing locust numbers to increase slightly. Regular surveys are recommended in both countries.

Eastern Region. Locust numbers declined in the spring breeding areas in western Pakistan as conditions dried out during June. Only a few adults persisted in parts of the interior and coastal areas in Baluchistan. Low numbers of solitarious adult appeared in the summer breeding areas in Cholistan, Pakistan near the Indian border. During the forecast period, small-scale breeding will occur along both sides of the Indo-Pakistan border, causing locust numbers to increase slightly but remain below threatening levels.

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

Internet: www.fao.org/ag/locusts

Facebook: www.facebook.com/pages/FAOLocust/314165595289302

Twitter: twitter.com/faolocust



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Weather & Ecological Conditions in June 2012

The ITCZ remained further north than usual in June, causing early pre-season rains to fall for the second consecutive month in the northern Sahel from Mali to Sudan. Pre-monsoon showers also fell in some places along both sides of the Indo-Pakistan border.

In the **Western Region**, the position of the Inter-Tropical Convergence Zone (ITCZ) remained about 125 km further north than usual over West Africa during June. This is the second consecutive month in which the ITCZ was north of its climatological average position. By the end of the second decade, it was located near Oualata (Mauritania), south of Kidal (Mali), Agadez (Niger), and Arada (Chad). As a result, good rains fell during June in parts of northern Mali (in the Adrar des Iforas near Tessalit and south of Kidal; south of Tin Essako in Tamesna; west of Timetrine), northern Niger (Tazerzait Plateau in Tamesna, Air Mountains, Tanout to Tahoua), and in Chad (Tibesti, Kanem, Batha, Biltine). In southeast Mauritania, good rains fell during the last decade of the month from Aioun El Atrous and Nema to the Mali border. Ecological conditions were favourable for breeding in parts of northern Mali (Adrar des Iforas, Tamesna) and Niger (Tamesna, Air Mountains and the pasture zones in the Sahel), and were improving in southeast Mauritania and Chad. In Northwest Africa, light rain fell at times in parts of the Sahara in eastern and southern Algeria and southwest Libya. Good rains fell between Adrar and Bechar in western Algeria. Vegetation was drying out south of the Atlas Mountains in Morocco and throughout Algeria. Vegetation was becoming green within a large portion of the central Western Sahara between Dakhla, Bir Anzarane and Guelta Zemmour from rains in April and May.

In the **Central Region**, good rains fell in the summer breeding areas in the interior of Sudan and western Eritrea during June. The rains were earlier than in most years due to the unusually northern position of the ITCZ. Consequently, light to moderate rain fell as far north as Geneina, El Fasher, El Obeid, Umm Saiyala, and Kassala in Sudan as well as the western lowlands in Eritrea. The rainfall will cause

ecological conditions to become favourable for breeding in July. On the Red Sea coast, light rain fell near Qunfidah, Saudi Arabia and in a few places on the southern Tihama in Yemen. Light to moderate rain fell in parts of Dakhliya and Sharqiya regions in northern Oman.

In the **Eastern Region**, good rains fell earlier than normal along both sides of the Indo-Pakistan border in June. Light to moderate showers occurred north and west of Jaisalmer, India and near Phalodi. Light rains fell in adjacent areas of Cholistan, Pakistan as well as in parts of Tharparkar Desert. Consequently, ecological conditions are expected to become favourable for breeding in these areas during July.



Area Treated

Algeria	987 ha (June)
Niger	960 ha (1-26 June)



Desert Locust Situation and Forecast

(see also the summary on page 1)

WESTERN REGION

Mauritania

• SITUATION

Scattered adults were reported at the end of June in the southeast in Hodh Ech Chargui.

• 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 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

Late reports indicated that a maturing swarm was seen on 27 May until 1 June in Wadi Ibrouladj in the Timetrine west of Aguelhoc (1927N/0052E).

During June, a small swarm was seen about 200 km west of Aguelhoc in the Timetrine near Inabag and Tikardjaten on the 12th, a mature swarm was reported on the 14th flying south near Aguelhoc. A large maturing swarm was seen on the 18th south of Aguelhoc in W. Touloust. Most of the locusts were said to be moving along the western side of the Adrar des Iforas. The reports could not be confirmed by locust survey teams.

- **FORECAST**

Moderate scale breeding is expected to occur in areas of recent rainfall in Tamesna, Adrar des Iforas and Timetrine, causing locust numbers to increase and giving rise to hopper groups and bands in July and adult groups and swarms in August. There remains a high risk that some of the adult groups and swarms that arrived in the north may continue to cropping areas between Nara, Mopti and Hombori. All efforts are required to undertake the necessary survey and control operations.

Niger

- **SITUATION**

From 1 to 11 June, there were more than 17 reports of immature adult groups and small swarms arriving from Algeria and Libya in the north between Arlit (1843N/0721E) and Dirkou (1859N/1253E), including the Air Mountains, Adrar Madet and the Ténéré Desert, Bilma oasis (1846N/1304E), and the Djado Plateau. Damage was reported to date palms and local cultivations. From the 5th onwards, there was an increase in the number of swarms arriving and some swarms had become mature. Immature swarms continued to be reported until the 22nd. Adults and a few small groups continued south of Agadez (1700N/0756E) towards pasture and cropping areas between Tanout (1458N/0852E) and Termit (1602N/1112E). Egg-laying was first reported on 21 June in pasture areas near Tanout by a group of solitarious and *transiens* adults. An increasing number of mature adults were seen in the same area during the last week of June. Ground teams treated 960 ha on 1-26 June.

- **FORECAST**

Moderate scale hatching will occur from early July onwards, causing locust numbers to increase and giving rise to hopper groups and bands during July and adult groups and swarms in August in the Air Mountains, Tamesna, parts of the Ténéré Desert, and in pasture and cropping areas between Tahoua and Termit. All efforts are required to undertake the necessary survey and control operations.

Chad

- **SITUATION**

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

- **FORECAST**

Small-scale breeding is likely to occur in areas of recent rainfall in Kanem, Batha, Biltine and, perhaps, Tibesti. There is a risk that a few groups of immature adults may have arrived in northern and central areas in June from northeast Niger. Regular surveys are recommended in all areas.

Senegal

- **SITUATION**

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

- **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 June, the locust situation improved due to control operations, drying conditions and subsequent migration of small groups and swarms south to the northern Sahel. During the first week, immature adults and small immature groups were present near Illizi (2630N/0825E), Bordj El Haoues (2452N/0826E) and Djanet (2434N/0930E). A few maturing adults and one group of maturing adults were seen near Illizi. Immature adults and groups began to appear in the extreme south near the Niger border at In Guezzam (1937N/0552E) on 1 June and continued for two weeks; mature adults were reported during the last week. No further infestations were reported in the Illizi and Djanet areas after the first week of June or in the south after 15 June. Ground teams treated 987 ha in June.

- **FORECAST**

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

Morocco

- **SITUATION**

During June, isolated immature and mature solitarious adults persisted in the northeast near Bouarfa (3232N/0159W). A few adults were seen copulating near Figuig (3207N/0113W).

- **FORECAST**

Local hatching may occur in early July near Figuig but locust numbers will remain below threatening levels. No significant developments are likely.



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Libya

- **SITUATION**

During June, the locust situation improved due to control operations and drying conditions in the southwest, and subsequent migration of small groups and swarms south to the northern Sahel. During the first week, only small groups of immature adults were seen on a farm south of Ghat (2459N/1011E) and scattered adults were present to the east. During the second week, there was an unconfirmed report of hopper bands in the southern part of the Al Hamada Al Hamra plateau near Dirj (3009N/1027E). No locusts were reported during the remainder of the month.

- **FORECAST**

A few residual infestations may still be present in parts of western Libya and perhaps in the centre southeast of Wadden. No significant developments are likely.

Tunisia

- **SITUATION**

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

- **FORECAST**

No significant developments are likely.

CENTRAL REGION

Sudan

- **SITUATION**

No reports were received during June.

- **FORECAST**

Low numbers of adults are likely to be present in parts of the summer breeding areas in the interior and breed on a small scale where rain has already fallen or will fall during the forecast period. Consequently, locust numbers will increase slightly but remain below threatening levels.

Eritrea

- **SITUATION**

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

- **FORECAST**

Small-scale breeding is expected to occur in the western lowlands, causing locust numbers to increase slightly.

Ethiopia

- **SITUATION**

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

- **FORECAST**

No significant developments are likely.

Djibouti

- **SITUATION**

No reports were received during June.

- **FORECAST**

No significant developments are likely.

Somalia

- **SITUATION**

No locusts were seen during a survey carried out in June on the northwest coast, escarpment and plateau west of Hargeisa (0931N/4402E).

- **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**

A late report indicated that no locusts were seen during surveys carried out in May in the southeast.

During June, no locusts were seen during surveys on the Red Sea coast near Shalatyn (2308N/3535E) and Abu Ramad (2224N/3624E), and near Lake Nasser in the Abu Simbel (2219N/3138E) and Al Allaqi areas.

- **FORECAST**

No significant developments are likely.

Saudi Arabia

- **SITUATION**

During June, no locusts were seen during surveys in the Asir Mountains east of Thuwal (2215N/3906E) and near Khamis Mushait (1819N/4245E) as well as in the interior.

- **FORECAST**

No significant developments are likely.

Yemen

- **SITUATION**

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

- **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 June, scattered solitary, *transiens* and gregarious late instar hoppers, fledglings, immature and mature adults, including a few small groups, were present on the eastern coast north of Duqm (1939N/5743E) in Wadi Sarab (2010N/5748E) and Wadi Shital (2011N/5746E). Light damage was reported in date palms and alfalfa. Hoppers and immature adults were seen to the west near Hayma (1957N/5616E). In the Sharqiya region, late instar solitary and *transiens* hoppers mixed with solitary and gregarious adults, at densities up to 20 adults/m², were present on the northeastern side of the Wahiba Sands in Wadi Batha and in crops near Bidiya (2226N/5848E). No locusts were seen in Dakhliya and Musandam.

• FORECAST

As vegetation dries out, a few small groups of adults could continue to form and move into cropping areas. Unless rains fall in Sharqiya or in central areas, further breeding is not expected.

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

• FORECAST

No significant developments are likely.

EASTERN REGION

Iran

• SITUATION

No locusts were seen during surveys carried out on the southern coastal plains near Jask (2540N/5746E) in June.

• FORECAST

No significant developments are likely.

Pakistan

• SITUATION

During June, a few mature adults were present in the northern interior of the spring breeding areas near Dalbandin (2856N/6430E) and fledglings were seen in the Shooli Valley near Turbat (2600N/6303E) and the coast. In the summer breeding areas, isolated mature adults appeared in Cholistan southeast of Rahimyar Khan (2822N/7020E) near the Indian border.

• Forecast

Locust numbers will decrease in the spring breeding areas in Baluchistan. Small-scale breeding will occur in Cholistan and parts of Tharparkar, causing locust numbers to increase slightly but remain below threatening levels.

India

• SITUATION

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

• 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/ECLo Desert Locust Information Service (ecl@fao.org). Information received by the end of the month will be included in the FAO Desert Locust Bulletin for the current month; otherwise, it will not appear until the following month. Reports should be sent even if no locusts were found or if no surveys were conducted.



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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.devcoast.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
- **Desert Locust Control Committee working papers.** Information Section

- **Sahel Crises – funding and action plan.** Information Section
- **Press Release (5 June).** Information Section

2012 events. The following activities are scheduled or planned:

- **CLCPRO/EMPRES-WR.** Western Region Locust Information Officer workshop, Dakar (16-18 July)
- **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.

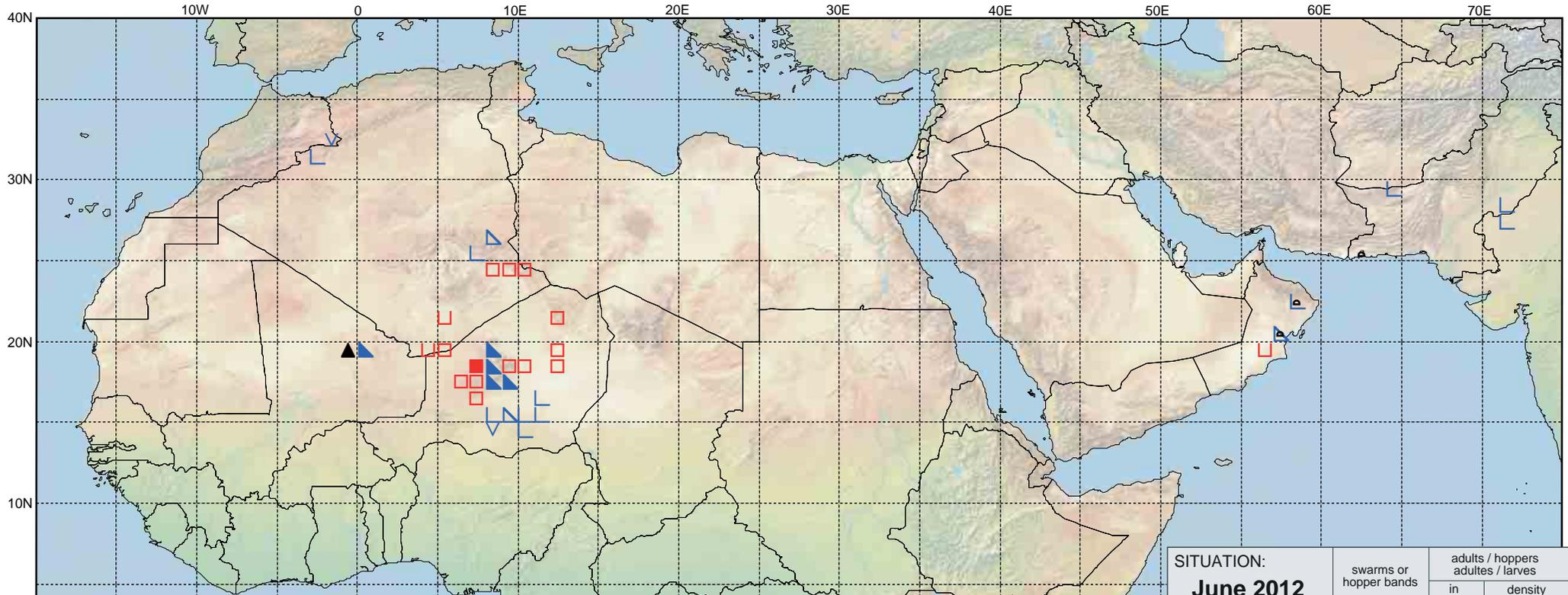


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Desert Locust Summary

Criquet pèlerin - Situation résumée



FORECAST TO: PREVISION AU:	15.08.12	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: June 2012 juin 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)			