

warning level: **CALM**

DESERT LOCUST BULLETIN

FAO Emergency Centre for Locust Operations



No. 383



**General Situation during August 2010
Forecast until mid-October 2010**

(2 September 2010)

The Desert Locust situation remained calm during August despite good rainfall throughout the summer breeding areas in the Sahel of West Africa and Sudan as well as along both sides of the Indo-Pakistan border. Small-scale breeding occurred in Mauritania and in Pakistan, and is likely to be underway in parts of Mali, Niger, Algeria, Chad, Sudan, Eritrea, and India. During the forecast period, small-scale breeding will continue in these areas and locust numbers could increase rapidly. By mid-October, there is a low risk that locusts could concentrate in vegetation that remains green and form small groups. All efforts should be made to conduct regular surveys during the next few months to monitor the situation.

Western Region. Good rains fell during August for a second consecutive month in the summer breeding areas of the northern Sahel between Mauritania and Chad. Small-scale breeding occurred in southeast Mauritania and is likely to be in progress in northern Mali and Niger (but surveys could not confirm this because of continued insecurity), in southern Algeria and in eastern Chad. During the forecast period, small-scale breeding will continue in the northern Sahel and locust numbers could increase rapidly. By mid-October, there is a low risk that locusts could concentrate in vegetation that remains green and form small groups, primarily in northwest Mauritania and to a lesser extent in other areas of northern Mali and Niger.

Central Region. Good rains fell during August for a second consecutive month in the summer breeding areas of northern Sudan, western Eritrea and the interior in Yemen. Only scattered solitary adults were seen in Sudan. A few hoppers and adults were present in eastern Ethiopia from undetected breeding in July. During the forecast period, small-scale breeding will cause locust numbers to increase in the interior of Sudan and western Eritrea and, to a lesser extent, in the interior of Yemen. Low numbers of solitary adults could appear in areas of recent rainfall on the Red Sea and Gulf of Aden coasts in Yemen and on the plateau in northern Somalia.

Eastern Region. Good rains associated with the monsoon fell during August for a second consecutive month throughout the summer breeding areas along both sides of the Indo-Pakistan border. Low numbers of adults were present between Tharparkar and Cholistan in Pakistan and small-scale breeding was reported. So far, breeding has not been detected in adjacent areas of Rajasthan, India. During the forecast period, small-scale breeding will cause locust numbers to increase in both countries.

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 made available on the Internet.

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Weather & Ecological Conditions in August 2010

Good rains fell for the second consecutive month throughout the summer breeding areas of the Sahel in West Africa and Sudan, and along the Indo-Pakistan border. Consequently, ecological conditions improved and were favourable for breeding. Good rains also fell along parts of the southern Red Sea coast, the Gulf of Aden coast, the interior of Yemen and on the Somali plateau.

In the **Western Region**, good rains fell in the summer breeding areas of the northern Sahel between Mauritania and Chad, especially during the second decade of August. The Inter-Tropical Convergence Zone (ITCZ) remained slightly further north (21N) than usual over the western portion of the Sahel. In Mauritania, rains reached as far north as southern Adrar and parts of Inchiri, and heavy rains fell in Tagant and southwest Adrar between Tidjikja and Oujef. Good rains, heavy at times, also fell in northern Mali (Taoudenni, Timetrine and Adrar des Iforas), Niger (Tamesna between In Abangharit and Agadez), and in eastern Chad (Abeche to Fada). In Algeria, light rains fell in parts of the central and southern Sahara near Tindouf, Bechar, Tamanrasset and Djanet while moderate rains were reported near the Malian border at Bir Bou Mokhtar. Consequently, ecological conditions improved in all of the above-mentioned areas and were favourable for breeding.

In the **Central Region**, the ITCZ persisted over northern Sudan during August and good rains continued to fall in the summer breeding areas of Darfur, Kordofan, Khartoum, River Nile and Kassala states, reaching as far north as Merowe. Heavy showers fell near Hamrat Esh Sheikh, El Obeid, and Ed Dueim. Good rains also fell in the summer breeding areas in the western lowlands of Eritrea and in parts of the interior of Yemen as well as on the Red Sea coast from Zabid, Yemen to Qunfidah, Saudi Arabia and on the southern Eritrean coast. Heavier showers fell on the central and southern Tihama in Yemen while lighter rains fell along parts of the southern coast of Yemen near Aden and on the plateau and coast in northwest Somalia. As a result of

these rains, ecological conditions remained favourable for breeding in the interior of Sudan and western Eritrea, and are likely to be improving in the other areas mentioned above.

In the **Eastern Region**, good rains associated with the seasonal monsoon continued to fall in the summer breeding areas along both sides of the Indo-Pakistan border during August. Rainfall was heaviest during the first two decades while it tapered off during the third decade. In any case, ecological conditions improved and were favourable for breeding in Pakistan from Tharparkar to Cholistan and in Rajasthan and Gujarat in India.



Area Treated

Area Treated

No control operations were reported in August.



Desert Locust Situation and Forecast

(see also the summary on page 1)

Desert Locust Situation and Forecast

(see also the summary on page 1)

WESTERN REGION

Mauritania

• SITUATION

During August, small-scale breeding occurred in a few places in the southeast between Timbedra (1614N/0809W) and Nema (1636N/0715W) where first instar hoppers were seen at densities of up to 8 hoppers/m² at mid-month. Isolated immature and mature solitary adults were present in the same area as well as north of Aioun El Atrous (1639N/0936W), near Kiffa (1638N/1124W) and north of Magta Lahjar (1730N/1305W).

• FORECAST

Small-scale breeding will continue and extend to the south, southwest and central areas where recent rains have fallen. This could cause locust numbers to increase rapidly. Fledging will commence by mid-September. By the end of the forecast period, locusts could concentrate and form small groups east and northeast of Nouakchott.

Mali

• SITUATION

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

- **FORECAST**

Scattered adults are likely to be present and breeding in parts of the Adrar des Iforas, Tilemsi Valley, Timetrine and Tamesna. During the forecast period, small-scale breeding could cause locust numbers to increase rapidly in these areas. Once rains come to an end and vegetation starts to dry out, there is a low risk that adults could concentrate and form small groups in some areas.

Niger

- **SITUATION**

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

- **Forecast**

Scattered adults are likely to be present and breeding in the Tamesna and near Tanout, and perhaps in the western Air Mountains. During the forecast period, small-scale breeding could cause locust numbers to increase rapidly in these areas. Once rains come to an end and vegetation starts to dry out, there is a low risk that adults could concentrate and form small groups in some areas.

Chad

- **SITUATION**

No reports were received during August.

- **FORECAST**

Scattered adults are likely to be present and breeding in parts of the east between Abeche and Fada, and in some places of Kanem and Batha. During the forecast period, small-scale breeding could cause locust numbers to increase rapidly in these areas. Once rains come to an end and vegetation starts to dry out, there is a low risk that adults could concentrate and form small groups in some areas.

Senegal

- **SITUATION**

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

- **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 August, no locusts were seen near Tamanrasset (2250N/0528E) and Adrar (2753N/0017W).

- **FORECAST**

Scattered adults are likely to be present and breeding in the extreme south near the Malian border. During the forecast period, small-scale breeding could cause locust numbers to increase rapidly.

Morocco

- **SITUATION**

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

- **FORECAST**

Low numbers of solitary adults may appear in the southern portion of Western Sahara by the end of the forecast period.

Libyan Arab Jamahiriya

- **SITUATION**

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

- **FORECAST**

Low numbers of locusts are likely to be present in parts of the southwest near Ghat.

Tunisia

- **SITUATION**

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

- **FORECAST**

No significant developments are likely.

CENTRAL REGION

Sudan

- **SITUATION**

During August, scattered immature and mature solitary adults at densities of up to 100 adults/ha were present in North Kordofan near Sodiri (1423N/2906E) and Umm Saiyala (1426N/3112E), and scattered mature adults were seen in Northern State near Merowe (1830N/3149E), in River Nile State near Berber (1801N/3400E) and Ed Damer (1734N/3358E), and near Khartoum (1533N/3235E).

- **FORECAST**

Small-scale breeding is almost certainly in progress and will continue in parts of West and North Darfur, West and North Kordofan, White Nile, River Nile, Northern and Kassala states, causing locust numbers to increase gradually during the forecast period.



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Eritrea

• SITUATION

A late report indicated that no locusts were seen on 27-31 July on the Red Sea coast between Tio (1441N/4057E) and the Sudanese border except near Sheib (1551N/3903E) where solitary adults were present.

No reports were received during August.

• FORECAST

Scattered adults are almost certainly present and breeding in the summer breeding areas of the western lowlands. During the forecast period, small-scale breeding will continue, causing locust numbers to increase slightly.

Ethiopia

• SITUATION

Isolated second to fourth instar solitary hoppers were present in the Somali Region near Ayasha (1045N/4234E) in early August, indicating that small-scale breeding occurred from undetected egg laying in mid-July. Isolated mature solitary adults were seen between Ayasha and Dire Dawa (0935N/4150E).

• FORECAST

Low numbers of adults are expected to persist and mature near Ayasha where they could eventually breed on a small scale if conditions remain favourable.

Djibouti

• SITUATION

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

• FORECAST

No significant developments are likely.

Somalia

• SITUATION

No reports were received during August.

• FORECAST

Low numbers of solitary adults may be present and breeding in parts of the plateau between Boroma and Burao, causing locust numbers to increase slightly during the forecast period.

Egypt

• SITUATION

No locusts were seen during surveys carried out near Abu Simbel (2219N/3138E) and Tushka

(2247N/3126E) in early August.

• FORECAST

No significant developments are likely.

Saudi Arabia

• SITUATION

No locusts were seen during surveys carried out on the Red Sea coast near Jeddah (2130N/3910E) and north of Jizan (1656N/4233E), and in the Asir Mountains near Khamis Mushait (1819N/4245E) and Al Barzah (2157N/3942E) during August.

• FORECAST

Scattered adults may appear in areas of recent rainfall on the Red Sea coast near Qunfidah and Jizan. No significant developments are likely.

Yemen

• SITUATION

No reports were received during August.

• FORECAST

Scattered adults are almost certainly present and breeding in parts of the summer breeding areas of the interior between Marib and Hadhramaut. During the forecast period, small-scale breeding will continue, causing locust numbers to increase slightly. Low numbers of adults could appear in areas of recent rainfall on the Red Sea and Gulf of Aden coasts.

Oman

• SITUATION

No locusts were seen during surveys in Musandam, Buraimi, Dhahira and Dakhliya regions in August.

• FORECAST

Small-scale breeding may occur in those areas of Sharqiya that received heavy rainfall from Cyclone Phet, causing locust numbers to increase slightly. Regular monitoring is recommended.

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 southeastern coast near Jask (2540N/5746E) in August.

• FORECAST

No significant developments are likely.

Pakistan

• SITUATION

Late reports indicated that mature solitary

adults were present during July at densities of up to 25 adults/ha in a few places of Mirpurkhas (2533N/6905E), Sukkur (2742N/6854E) and Uthal (2548N/6637E) areas.

During the first half of August, small-scale breeding occurred in Cholistan east of Rahimyar Khan (2822N/7020E) near the Indian border where isolated mid-instar hopper were seen at two places. Scattered mature solitarious adults were present at more places along the border in Cholistan and, to a lesser extent, in Sukkur, Khairpur and Tharparkar.

- **Forecast**

Locust numbers will increase slightly as small-scale breeding continues in the summer breeding areas in Cholistan, Khairpur and Tharparkar. Unless further rains fall, breeding is expected to come to an end by mid-October.

India

- **SITUATION**

No locusts were seen during intensive surveys carried out during August in the summer breeding areas in Rajasthan and Gujarat except for isolated mature solitarious adults at one location west of Barmer (2543N/7125E) near the Pakistani border.

- **FORECAST**

Locust numbers will increase slightly as small-scale breeding continues in the summer breeding areas in Rajasthan and Gujarat. Unless further rains fall, breeding is expected to come to an end by mid-October.

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 (ecllo@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.

Google site. FAO DLIS has created a Google site (<https://sites.google.com/site/faodlis>) for national locust information officers to share problems, solutions and tips in using new technologies (eLocust2, eLocust2Mapper, RAMSES, remote sensing) and to make available the latest files for downloading. The site replaces the FAODLIS Google group, which will no longer be maintained. Interested users should contact Keith Cressman (keith.cressman@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. The site is available in English and French. Address comments and questions to Pietro Ceccato (pceccato@iri.columbia.edu).

New information on Locust Watch. Recent additions to the web site (www.fao.org/ag/locusts) are:

- **2010 Iran/Pakistan Joint Survey report.** Publications Section – Reports
- **Desert Locust situation updates.** Archives Section – Briefs
- **Desert Locust risk map update.** Archives Section – Risk maps



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2010 events. The following activities are scheduled or planned:

- **CRC.** 31st session of Executive Committee and 27th session of Commission, Beirut, Lebanon (20-24 Sep)
- **EMPRES/WR.** Desert Locust Master Trainers (Survey) regional workshop, Mauritania (Oct)
- **SWAC.** 27th session, Islamabad, Pakistan (14-16 Dec)
- **EMPRES/WR.** 6th Steering Committee meeting and 9th EMPRES Liaison Officers meeting, Tripoli, Libya (Dec)



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

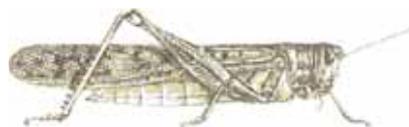
- locust-affected countries in West and North-West Africa: Algeria, Chad, Libya, Mali, Mauritania, Morocco, Niger, Senegal, Tunisia; during plagues only: Burkino Faso, Cape Verde, Gambia, Guinea and Guinea-Bissau.

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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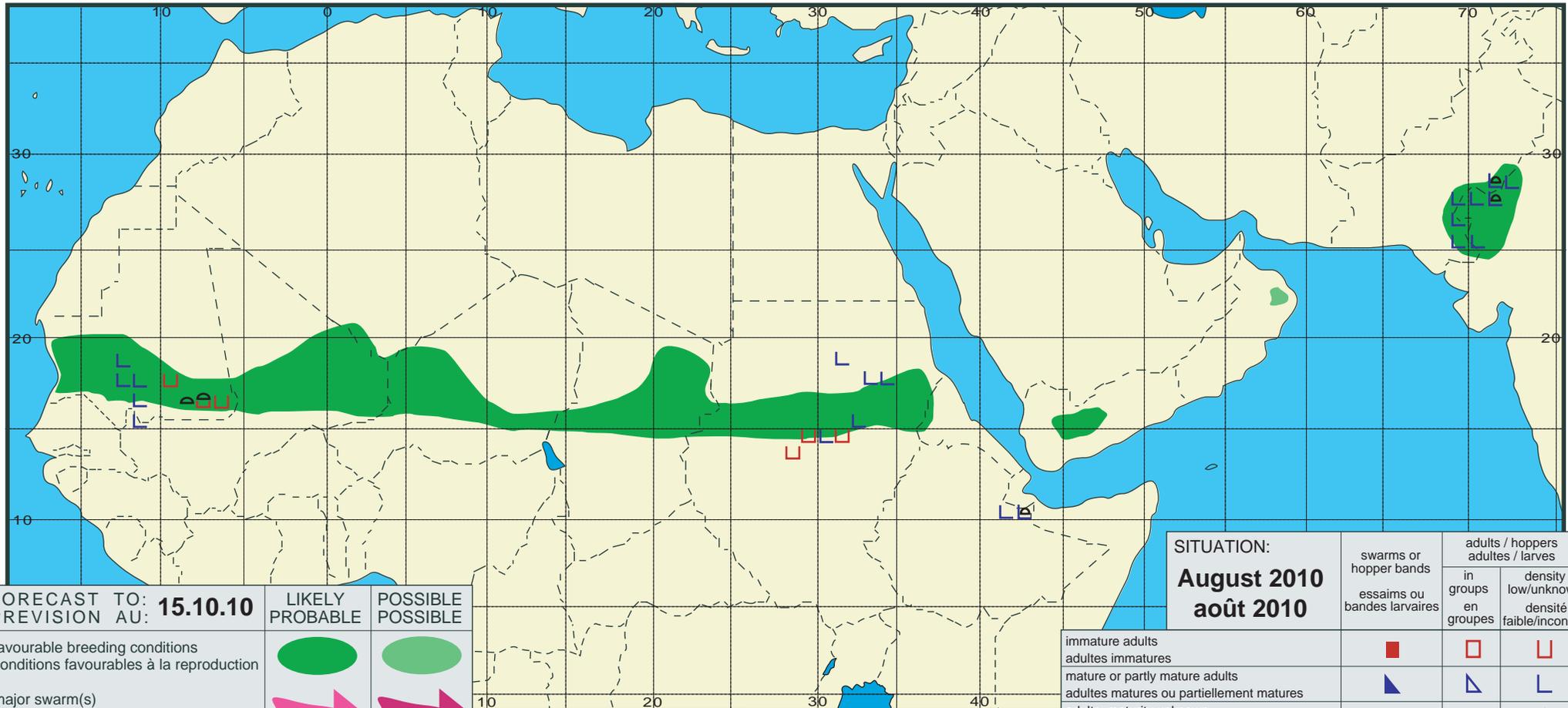
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Desert Locust Summary

Criquet pèlerin - Situation résumée

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FORECAST TO: PREVISION AU: 15.10.10	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:
August 2010
août 2010

	swarms or hopper bands	adults / hoppers	
	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)			