

warning level: **CALM**

DESERT LOCUST BULLETIN

FAO Emergency Centre for Locust Operations



No. 398



**General Situation during November 2011
Forecast until mid-January 2012**

(1 Dec 2011)

The Desert Locust situation remained calm during November as vegetation dried out in the summer breeding areas of the northern Sahel in West Africa and Sudan, and along the Indo-Pakistan border. Consequently, low numbers of adults moved to the winter breeding areas in northwest Mauritania and along both sides of the Red Sea. If rain falls during the forecast period, small-scale breeding will occur in these areas, causing locust numbers to increase slightly but remain below threatening levels. Small-scale breeding may also occur along the southeastern coast of Oman where unusually good rains fell.

Western Region. In the absence of significant rain, vegetation continued to dry out and locust numbers declined in the summer breeding areas of the northern Sahel during November. In **Mauritania**, low number of solitary adults moved from the summer breeding areas in the southeast, south and centre of the country to the northwest. In **Niger**, small-scale breeding occurred on the Tamesna Plains where scattered solitary adults were present and control teams treated 95 ha. In **Chad**, low numbers of solitary adults matured and persisted mainly in the east. In **Algeria**, isolated adults were present in parts of the Sahara. No locusts were reported elsewhere in the region. If more rain falls in northwest Mauritania, small-scale breeding may occur during the forecast period, causing locust numbers to increase slightly. Scattered adults may appear in adjacent areas of **Western Sahara** in southern Morocco.

Central Region. Low numbers of solitary adults moved from the summer breeding areas in the interior of **Sudan** to the winter breeding areas on the Red Sea coast during November. So far, only a few adults have been seen in the Tokar Delta. In **Saudi Arabia**, small-scale breeding occurred on the Red Sea coast near Qunfidah where low numbers of solitary hoppers and adults were present. During the forecast period, small-scale breeding will take place in coastal areas along both sides of the Red Sea in **Sudan**, **Eritrea**, **Saudi Arabia** and **Yemen** that receive rainfall, causing locust numbers to increase slightly but remain below threatening levels. Small-scale breeding may also occur along parts of a 1,000 km stretch of coastline in southeast **Oman** where good rains fell.

Eastern Region. No locusts were reported in the region during November. Good rains fell on the Baluchistan coast in western **Pakistan**. Consequently, ecological conditions are expected to improve and small-scale breeding may occur, especially if temperatures remain warm, causing locust numbers to increase but remain below threatening levels. Regular surveys are recommended to monitor the situation. No significant developments are expected during the forecast period.

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 November 2011

No significant rain fell and vegetation continued to dry out in the summer breeding areas of West and Northeast Africa as well as on both sides of the Indo-Pakistan border. Localized showers fell in parts of the winter breeding areas on both sides of the Red Sea. Unusually good rains fell along the entire southeastern coast of Oman.

In the **Western Region**, the Inter-Tropical Convergence Zone (ITCZ) remained somewhat further south of the summer breeding areas than normal during November. Despite seasonal predictions of higher than normal rainfall, no significant rain fell during the month and annual vegetation dried out in most places. Ecological conditions remained favourable for locust survival and limited breeding in a few localized areas of central and northwest Mauritania, near Aousserd in southern Western Sahara, in parts of northern Mali, Niger, and eastern Chad, in the Ziz-Ghris and Draa valleys on the southern side of the Atlas Mountains in Morocco, and southwest of the Hoggar Mountains in southern Algeria.

In the **Central Region**, the ITCZ remained south of 11N during November. Consequently no significant rain fell in the summer breeding areas of Sudan and Eritrea where vegetation continued to dry out. In the winter breeding areas along both sides of the Red Sea, light rain fell in a few places on the coast of Sudan between Tokar Delta and Karora, on the southern coast of Eritrea between Tio and Idd, on the coast near Qunfidah, Saudi Arabia and on the coast of Yemen between Zabid and Am Rija. Nevertheless, more rain is needed before ecological conditions become favourable for breeding. Good rains fell on the southern coast of Yemen near Mukalla while heavier showers fell during the first decade of November along a 1,000 km stretch of coast from Al Ghaydah, Yemen to Sur, Oman. Some of the rains reached the interior of central and southern Oman. As the same coastal areas of Oman received good rains during the last decade of October, annual vegetation became green by late November along most of the coast and

in the interior of Sharqiya near Wadi Batha. In the Horn of Africa, light showers fell in a few places on the escarpment in northern Somalia between Hargeisa and Berbera, and in eastern Ethiopia near Dire Dawa and Jijiga.

In the **Eastern Region**, light rains fell during the first decade of November along the Baluchistan coast from Chabahar in southeast Iran to Ormara in western Pakistan. More rain is probably required before ecological conditions become favourable for breeding. Dry conditions prevailed along both sides of the Indo-Pakistan border where vegetation continued to dry out.



Area Treated

Niger 95 ha (November)



Desert Locust Situation and Forecast

(see also the summary on page 1)

WESTERN REGION

Mauritania

• SITUATION

During November, scattered immature and mature solitary adults completed their movement from the southeast (two Hodhs), south (Assaba, Brakna) and centre (Tagant) to the west (Trarza) and northwest (Inchiri, southwest Adrar). Most of the adults arrived in eastern Trarza between Aguilal Faye (1827N/1444W) and Moudjeria (1752N/1219W) and, to a lesser extent in Inchiri between Akjoujt (1945N/1421W) and Bennichab (1932N/1512W), and in southwest Adrar near Oujeft (2003N/1301W). Locust numbers remained low. A few late instar hoppers were seen south of Akjoujt and east of Aguilal Faye.

• FORECAST

If rainfall occurs, small-scale breeding will cause locust numbers to increase slightly in northern Trarza, Inchiri and southwest Adrar but remain below threatening levels.

Mali

• SITUATION

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

• FORECAST

Locust numbers will continue to decline as vegetation dries out in the Tilemsi Valley, Adrar des

Iforas, Tamesna and Timetrine. Adults are expected to concentrate in any vegetation that remains green.

Niger

• SITUATION

During November, scattered immature solitary adults persisted in parts of central Tamesna at densities of up to 625 adults/ha. Small-scale breeding occurred at a few places and isolated late instar solitary hoppers were reported. Ground teams treated 95 ha.

• FORECAST

Locust numbers will decline in Tamesna and Tadres as vegetation continues to dry out.

Chad

• SITUATION

During November, isolated solitary adults matured and persisted in the east between Arada (1501N/2040E) and Fada (1714N/2132E) and, to a lesser extent, in Kanem near Salal (1448N/1712E).

• FORECAST

Locust numbers will decline as vegetation continues to dry out. No significant developments are likely.

Senegal

• SITUATION

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

• 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 November, isolated mature solitary adults were seen in the southern Sahara west of Tamanrasset (2250N/0528E) in W. Amded. Isolated immature solitary adults were present in the west near Tindouf (2741N/0811W) and in the central Sahara south of Adrar (2753N/0017W).

• FORECAST

If temperatures stay warm, local breeding may occur near Adrar and Tamanrasset causing locust numbers to increase slightly but remain below threatening levels.

Morocco

• SITUATION

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

• FORECAST

Scattered adults may appear in the extreme south of the Western Sahara and breed on a small scale if rainfall occurs.

Libyan Arab Jamahiriya

• SITUATION

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

• FORECAST

A few solitary adults may be present and breeding in areas of recent rainfall in the southwest along the Algerian border between Ghat and Ghadames. No significant developments are likely.

Tunisia

• SITUATION

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

• FORECAST

No significant developments are likely.

CENTRAL REGION

Sudan

• SITUATION

During November, low numbers of adults moved from the summer breeding areas in the interior to the winter breeding areas along the Red Sea coast. Isolated mature solitary adults were seen at one place in the Tokar Delta. No locusts were reported between Tokar (1827N/3741E) and Suakin (1906N/3719E).

• FORECAST

Small-scale breeding will occur in the Tokar Delta and, if additional rains fall, in adjacent parts of the Red Sea coastal plains between Suakin and the Eritrean border. Consequently, locust numbers will increase slightly but remain below threatening levels.

Eritrea

• SITUATION

No reports were received during November.

• FORECAST

Small-scale breeding will occur on the Red Sea coastal plains in areas that receive rainfall, and cause locust numbers to increase slightly but remain below threatening levels.



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Ethiopia

- SITUATION

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

- FORECAST

No significant developments are likely.

Djibouti

- SITUATION

No reports were received during November.

- FORECAST

No significant developments are likely.

Somalia

- SITUATION

No reports were received during November.

- FORECAST

No significant developments are likely.

Egypt

- SITUATION

No reports were received during November.

- FORECAST

No significant developments are likely.

Saudi Arabia

- SITUATION

During November, small-scale breeding occurred on the Red Sea coast near Qunfidah (1909N/4107E) where hatching occurred after mid-month and low numbers of second instar solitarious hoppers were seen at one place. Scattered immature solitarious adults were present at five places nearby. No locusts were seen near Jeddah (2130N/3910E), Jizan (1656N/4233E) and in the interior.

- FORECAST

Small-scale breeding will continue near Qunfidah and will take place in other coastal areas that receive rainfall during the forecast period. Consequently, locust numbers will increase slightly along the coast but remain below threatening levels.

Yemen

- SITUATION

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

- FORECAST

Scattered adults may be present and breeding on a

small scale in areas of recent rainfall on the Red Sea coast and on the southern coast near Mukalla and Al Ghaydah. This is likely to continue during the forecast period.

Oman

- SITUATION

No locusts were seen during surveys carried out in the south (Dhofar), northern interior (Al Dakhliya), the Batinah coastal plains and the Musandam Peninsula in November. No locusts were reported elsewhere.

- FORECAST

Small-scale breeding may cause locust numbers to increase slightly in coastal areas between Salalah and Sur and along the eastern edge of the Wahiba Sands.

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 November, no locusts were seen during surveys on the southeastern coast near Jask (2540N/5746E) and in the western Jaz Murian Basin near Kahnuj (2757N/5742E).

- FORECAST

Low numbers of locusts may appear on the southeast coastal plains near Chabahar where small-scale breeding will occur in areas that receive rainfall.

Pakistan

- SITUATION

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

- Forecast

Low numbers of locusts may appear on the coastal plains in Baluchistan between Jiwani and Ormara and breed on a small scale in areas of recent rainfall.

India

- SITUATION

During the first fortnight of November, no locusts were seen during surveys carried out in Rajasthan and Gujarat.

- FORECAST

No significant developments are likely.

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/ECLLO 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.

Locust tools and resources. FAO has developed a number of tools that National locust information officers and other staff 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)
- **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.devccast.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>)
- **FAOLOCAST Twitter.** The very latest updates are posted on Twitter (<http://twitter.com/faolocust>)
- **eLERT.** A dynamic and interactive online database of resources for locust emergencies (<http://sites.google.com/site/elertsite>)

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 risk map.** Archives Section – Risk maps

2011-12 events. The following activities are scheduled or planned:

- **EMPRES/WR.** 10th Liaison Officer meeting, N'Djamena, Chad (12-16 December)
- **EMPRES/WR.** 7th Consultative Committee meeting, N'Djamena, Chad (19-20 December)
- **CLCPRO.** 6th session, Tunis, Tunisia (26-31 March)
- **DLCC.** 40th session, Cairo, Egypt (mid-May, 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



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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.

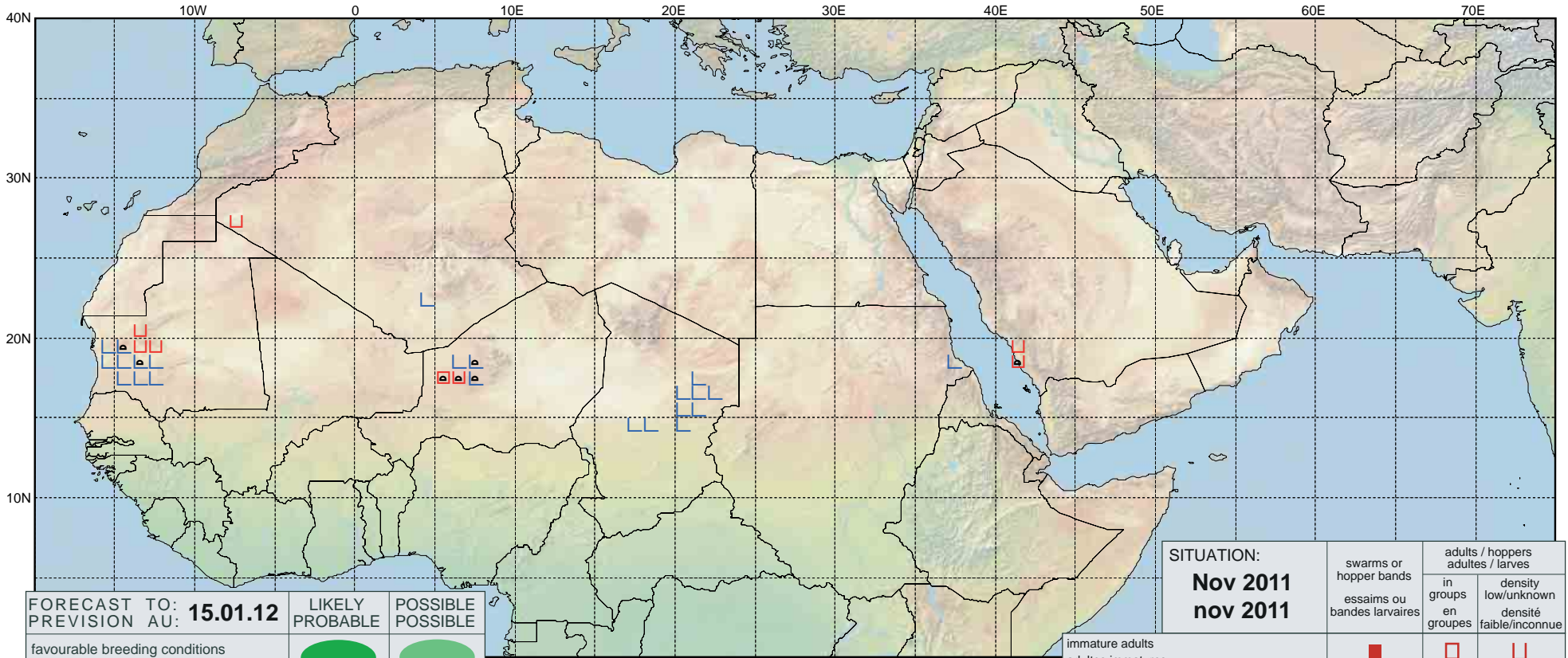
EASTERN

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



Desert Locust Summary

Criquet pèlerin - Situation résumée



FORECAST TO: PREVISION AU:	15.01.12	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: Nov 2011 nov 2011	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)			