

warning level: **CALM**

DESERT LOCUST BULLETIN

FAO Emergency Centre for Locust Operations



No. 469



General Situation during October 2017
Forecast until mid-December 2017

(3.11.2017)

The Desert Locust situation continued to remain calm during October. Seasonal rains ended in the summer breeding areas of the Sahel in West Africa and Sudan as well as along the Indo-Pakistan border. Consequently, vegetation was drying out and locust numbers were decreasing. Small-scale breeding continued in western Mauritania but locust numbers remained low. A second generation of breeding is thought to be underway in one area on the Red Sea coast in Eritrea where good rains have fallen since May. During the forecast period, small-scale breeding will cause locust numbers to increase slightly along both sides of the Red Sea as well as in western Mauritania, which could perhaps extend to southern areas of Western Sahara.

Western Region. The situation remained calm during October. Small-scale breeding continued in western Mauritania but locust numbers remained low. Limited breeding occurred on the Tamesna Plains in northern Niger and low numbers of adults were seen in southern Algeria near the border with Mali. During the forecast period, small-scale breeding will continue in western Mauritania and is likely to extend towards the northwest and into adjacent areas of the Western Sahara in southern Morocco, causing locust numbers to increase slightly.

Central Region. The locust situation remained calm in the region during October. Vegetation dried out and no locusts were seen in the summer breeding areas of the interior in Sudan. In the winter breeding areas, a second generation of breeding may be in progress in a relatively small area on the central coast of Eritrea where hoppers were starting to gregarize and ground teams treated 2 ha. Elsewhere, ecological conditions were favourable for breeding on the Tihama coast of Yemen and were improving in Saudi Arabia and Sudan. The situation remains unclear in Yemen due to prevailing insecurity that prevents field surveys. During the forecast period, small-scale breeding is expected to occur along both sides of the Red Sea, causing locust numbers to increase slightly. Regular surveys should be undertaken, especially in Eritrea.

Eastern Region. The locust situation continued to remain calm in the region during October. Only a few locusts remained in the summer breeding areas of Pakistan near the border with India. No locusts were seen during regular surveys in India or on the coastal plains in southeast Iran. No significant developments are likely 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 are available on the Internet.

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Weather & Ecological Conditions in October 2017

Vegetation continued to dry out in the summer breeding areas of the Sahel in West Africa and Sudan as well as along both sides of the Indo-Pakistan border. Breeding conditions were favourable on the central Red Sea coast in Eritrea due to good rains since May, and on the coast of Yemen.

In the **Western Region**, the Inter-Tropical Convergence Zone (ITCZ) had moved south of the summer breeding areas in the Sahel of West Africa by the end of the first decade of October. Consequently, no significant rain fell in these areas during the month and vegetation continued to dry out in most areas except in parts of Tamesna in northern Niger and in southern Algeria along the border with Mali. Light rain fell during the first decade in western Mauritania where conditions were already favourable for breeding. In Northwest Africa, good rains fell in northeast Morocco and adjacent areas of Algeria but this is likely to be of little significance to Desert Locust at this time of year.

In the **Central Region**, the Inter-Tropical Convergence Zone (ITCZ) had moved south of the summer breeding area in the interior of Sudan by the end of the first decade of October. Consequently, vegetation was drying out and ecological conditions were no longer favourable for breeding. In the winter breeding areas, light rains fell at mid-month on the central coast of the Red Sea in Eritrea and on the Tihama of Yemen where conditions were already favourable for breeding. At the end of the month, rains started to fall on the Sudanese coast near Suakin and Aiterba that should allow ecological conditions to improve for breeding. Vegetation was becoming green in the Tokar Delta of Sudan and on the Red Sea coastal plains of Saudi Arabia near Jizan and to a lesser extent near Lith and Qunfidah.

In the **Eastern Region**, no significant rain fell in the region during October. By the end of the month, ecological conditions were no longer favourable for breeding along both sides of the Indo-Pakistan border where vegetation was drying but remained green in a

few places of Cholistan, Pakistan and in Rajasthan, India. Dry conditions prevailed on the southeast coastal plains of Iran.



Area Treated

Eritrea 2 ha (Oct)



Desert Locust Situation and Forecast

(see also the summary on page 1)

WESTERN REGION

Mauritania

• SITUATION

During October, isolated immature and mature adults persisted in parts of the summer breeding areas in the south between Aioun El Atrous (1639N/0936W) and Tamchekket (1714N/1040W) as well as in western areas between Nouakchott (1809N/1558W) and Tidjikja (1833N/1126W). A few adults extended northwards into Inchiri near Tasiast (2034N/1531W), and small-scale breeding occurred southwest of Oujeft (2003N/1301W), giving rise to isolated solitary hoppers of all instars.

• FORECAST

Small-scale breeding will continue in parts of Trarza, Tagant and southwest Adrar, causing locust numbers to increase slightly. If rains fall, small-scale breeding will also occur in Inchiri.

Mali

• SITUATION

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

• FORECAST

Low numbers of adults are likely to persist in parts of the Adrar des Iforas.

Niger

• SITUATION

In early October, small-scale breeding continued on the Tamesna Plains where scattered solitary hoppers of all instars mixed with low numbers of immature and mature solitary adults were seen west of In Abangharit (1754N/0559E).

• FORECAST

Breeding will decline in Tamesna where there may be a slight risk of a few small groups forming as vegetation dries out. Low numbers of adults are likely to persist in parts of Tamesna with some moving to the Air Mountains.

Chad

• SITUATION

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

• FORECAST

No significant developments are likely.

Senegal

• SITUATION

No locust activity was reported during October.

• 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 October, isolated immature solitarious adults were present in the extreme south along the border of Mali between Bordj Badji Mokhtar (2119N/0057E) and Timeiaouine (2026N/0148E). No locusts were seen in the Adrar Valley, near Tamanrasset (2250N/0528E) and in the south near the Niger border and In Guezzam (1937N/0552E)

• FORECAST

Scattered adults may persist in the extreme south near the Mali border while others could remain near irrigated cropping areas in the Adrar Valley.

Morocco

• SITUATION

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

• FORECAST

Low numbers of adults may appear in areas of September rainfall in the Western Sahara and breed on a small scale.

Libya

• SITUATION

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

• FORECAST

No significant developments are likely.

Tunisia

• SITUATION

No locust activity was reported during October.

• FORECAST

No significant developments are likely.

CENTRAL REGION

Sudan

• SITUATION

During October, no locusts were seen during surveys in the River Nile State west of Ed Damer (1734N/3358E) in the Baiyuda Desert and southeast of Ed Damer along the Atbara River.

• FORECAST

Low numbers of adults will appear in winter breeding areas along the Red Sea coast and breed on a small-scale between Suakin and the Eritrean border.

Eritrea

• SITUATION

In early October, scattered solitarious hoppers of all instars mixed with some *transiens* and gregarious hoppers and isolated immature solitarious adults were reported at five places on the central Red Sea coastal plains near Sheib (1551N/3903E) and the western edge of the Akbanazouf Plain (1555N/3910E). These infestations are a result of earlier good rains and runoff that allowed egg-laying to take place during the last decade of August with hatching in early September. This may represent second-generation breeding given that unusually good rains fell in May and June in the same area. Ground teams 2 ha of hopper groups. No locusts were seen elsewhere along the central and northern coast.

• FORECAST

Another generation of breeding is likely to occur on the central Red Sea coast, causing locust numbers to increase during the forecast period with the possibility of small groups forming. Low numbers of adults may spread north along the coast.

Ethiopia

• SITUATION

No reports were received in October.

• FORECAST

No significant developments are likely.

Djibouti

• SITUATION

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

• FORECAST

No significant developments are likely.



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Somalia

- SITUATION

No reports were received in October.

- FORECAST

Low numbers of adults may appear and breed on the northwest coast in any areas that receive rainfall. No significant developments are likely.

Egypt

- SITUATION

During October, no locusts were seen near Lake Nasser in the Tushka (2247N/3126E) and Abu Simbel (2219N/3138E) areas as well as on the Red Sea coast between Berenice (2359N/3524E) and the Sudanese border.

- FORECAST

Low numbers of adults may appear and breed on the southeastern coastal plains of the Red Sea in any areas that receive rainfall. No significant developments are likely.

Saudi Arabia

- SITUATION

During October, no locusts were seen during surveys carried out on the Red Sea coast between Thuwal (2215N/3906E) and the Yemeni border.

- FORECAST

Low numbers of adults may appear in winter breeding areas on the Red Sea coast and breed on a small scale in any areas that receive rainfall during the forecast period.

Yemen

- SITUATION

No surveys could be carried out during October due to insecurity and no locusts were reported.

- FORECAST

Low numbers of adults are likely to be present on the Red Sea coast where small-scale breeding is expected to occur during the forecast period, especially in areas that receive rainfall. This will cause locust numbers to increase slightly.

Oman

- SITUATION

During October, no locusts were seen during surveys carried out in a few places of the Musandam Peninsula, the Batinah coast, the northern

interior between Buraimi (2415N/5547E) and Ibrī (2314N/5630E), near Adam (2223N/5731E), and in the south near Thumrait (1736N/5401E).

- FORECAST

No significant developments are likely.

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

- FORECAST

No significant developments are likely.

EASTERN REGION

Iran

- SITUATION

No locusts were seen during surveys carried out in October on the southeast coast near Jask (2540N/5746E) and Chabahar (2517N/6036E).

- FORECAST

No significant developments are likely.

Pakistan

- SITUATION

During October, isolated mature solitary adults persisted in Cholistan near the Indian border south of Bahawalpur (2924N/7147E) and near Islamgarh (2751N/7048E).

- FORECAST

Locust activity will decline in the summer breeding areas along the Indo-Pakistan border as vegetation continues to dry out. No significant developments are likely.

India

- SITUATION

During October, no locusts were seen during survey 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/ECLO Desert Locust Information Service (eclo@fao.org). Reports received by the first two days of the new month will be included in the FAO Desert Locust Bulletin for the current month; otherwise, they will not appear until the following month. Reports should be sent even if no locusts were found or if no surveys were conducted.

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

- **WMO/FAO Weather and Desert Locusts booklet.** Publications – Documents
- **CRC/SWAC Desert Locust Information Officers workshop.** Publications – Reports 2017
- **SWAC Iran/Pakistan Joint Survey results.** Publications – Reports 2017

RAMSES training videos. New training videos are available on YouTube for Rv4.1 users – see Useful tools and resources section of this bulletin.

2017–2018 events. The following activities are scheduled or planned:

- **CLCPRO.** Regional training in survey techniques for newly recruited scouts, Akjoujt, Mauritania (2 October – 5 November)
- **CLCPRO.** 16th EMPRES liaison officers meeting and 13th Steering Committee meeting, Agadir, Morocco (1–9 December)
- **CRC.** 10th Subregional training course on Desert Locust campaigns (December) [tbc]
- **SWAC.** Desert Locust Information Officer workshop, Tehran (15–17 January)



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 AREAS

- July–September/October (Sahel of West Africa, Sudan, western Eritrea; Indo-Pakistan border)



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WINTER RAINS AND BREEDING AREAS

- October–January/February
(Red Sea and Gulf of Aden coasts; northwest Mauritania, Western Sahara)

SPRING RAINS AND BREEDING AREAS

- February–June/July
(Northwest Africa, Arabian Peninsula interior, Somali plateau, Iran/Pakistan border)

RECESSION

- period without widespread and heavy infestations by swarms.

REMISSION

- period of deep recession marked by the complete absence of gregarious populations.

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.

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.

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.



Useful tools and resources

FAO Locust Watch. Information, maps, activities, publications, archives, FAQs, links

<http://www.fao.org/ag/locusts>

IRI RFE. Rainfall estimates every day, decade and month

http://iridl.ldeo.columbia.edu/maproom/.Food_Security/.Locusts/index.html

IRI Greenness maps. Dynamic maps of green vegetation evolution every decade

http://iridl.ldeo.columbia.edu/maproom/Food_Security/Locusts/Regional/greenness.html

IRI MODIS. Vegetation imagery every 16 days

http://iridl.ldeo.columbia.edu/maproom/Food_Security/Locusts/Regional/MODIS/index.html

Windy. Real time rainfall, winds and temperatures for locust migration

<http://www.windy.com>

eLocust3 training videos. A set of 15 introductory training videos are available on YouTube

<https://www.youtube.com/playlist?list=PLf7Fc-oGpFHEdv1jAPaF02TCfpcnYoFQT>

RAMSESv4 training videos. A set of basic training videos are available on YouTube

<https://www.youtube.com/playlist?list=PLf7Fc-oGpFHGyzXqE22j8-mPDhhGNq5So>

RAMSESv4 and eLocust3. Installer, updates, videos, inventory and support

<https://sites.google.com/site/rv4elocust3updates/home>

FAOLocust Twitter. The very latest updates posted as tweets

<http://www.twitter.com/faolocust>

FAOLocust Facebook. Information exchange using social media

<http://www.facebook.com/faolocust>

FAOLocust Slideshare. Locust presentations and photos

<http://www.slideshare.net/faolocust>

eLERT. Online database of resources and technical specifications for locust emergencies

<http://sites.google.com/site/elertsite>

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: Benin, Burkino Faso, Cameroon, Cape Verde, Côte d'Ivoire, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Nigeria, Sierre Leone and Togo.

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, Lebanon, Palestine, Qatar, South Sudan, Syria, Tanzania, Turkey, UAE and Uganda.

EASTERN

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



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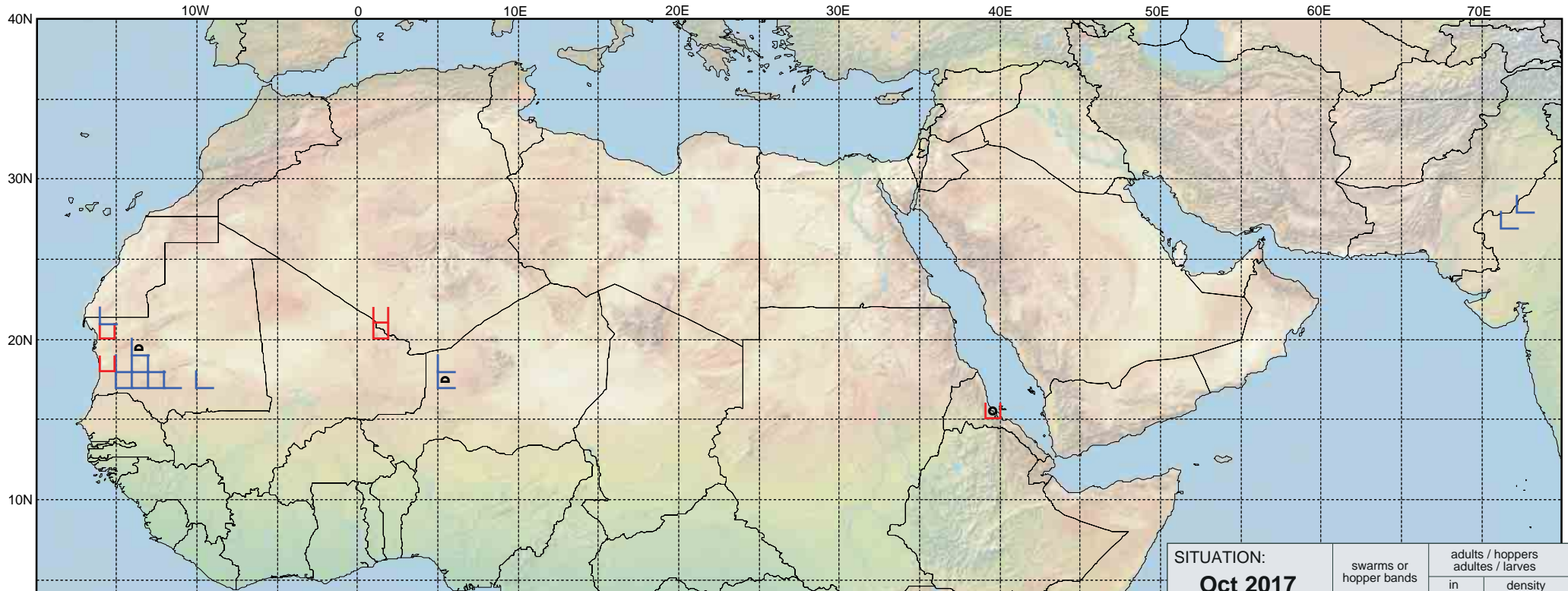
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Desert Locust Summary

Criquet pèlerin - Situation résumée

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FORECAST TO: PREVISION AU: 15.12.17	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: Oct 2017 oct 2017	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)			