



warning level: CAUTION

DESERT LOCUST BULLETIN

FAO Emergency Centre for Locust Operations



General Situation during July 2014
Forecast until mid-September 2014



No. 430

(1.8.2014)

The Desert Locust situation improved during July. Limited control operations were carried out against a small number of adult groups and swarms that formed in the spring breeding areas in the interior of Saudi Arabia. Some swarms moved to Yemen where they dispersed and may eventually lay eggs. Remnants of swarms were reported in northern Ethiopia and one swarm was treated in Eritrea. Scattered adults and a few small groups were present in northern Sudan where local breeding occurred in a few places, and scattered adults appeared in the summer breeding areas in Pakistan. During the forecast period, small-scale breeding will occur in the northern Sahel of West Africa and Sudan as well as along both sides of the Indo-Pakistan border, causing locust numbers to increase slightly.

Western Region. No locusts were reported and the situation remained calm in July. Seasonal rains commenced during the month in the summer breeding areas of the northern Sahel in West Africa and ecological conditions were improving. Consequently, small-scale breeding is expected to occur during the forecast period, causing locust numbers to increase slightly in southern and central Mauritania, northern Mali, Niger and Chad.

Central Region. The situation remained generally calm in July. Locust infestations declined in the spring breeding areas in the interior of **Saudi Arabia** due to control operations and drying conditions. Nevertheless, some adult groups and small swarms formed and moved southwest towards the Red Sea while others moved to the highlands and interior of **Yemen**. There is a risk that a few small swarms could reach **Sudan** where scattered adults and a few small groups were already present in the north. Remnants of earlier swarms were maturing in the northern highlands of **Ethiopia** and one swarm reached **Eritrea** where it was treated. During the forecast period, breeding will occur in the interior of Sudan and perhaps in the western lowlands of Eritrea and in the interior of Yemen, causing locust numbers to increase slightly.

Eastern Region. The situation remained calm in July. The southwest monsoon commenced, bringing rainfall to the summer breeding areas along both sides of the Indo-Pakistan border. So far, only scattered adults have been reported in Cholistan, **Pakistan**. During the forecast period, small-scale breeding will cause locust numbers to increase in Rajasthan, **India** and adjacent areas of Pakistan.

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 July 2014

Seasonal rains commenced in the summer breeding areas of the northern Sahel in West Africa and Sudan as well as along the Indo-Pakistan border, causing ecological conditions to improve for breeding.

In the **Western Region**, the Inter-Tropical Convergence Zone (ITCZ) continued its seasonal movement northwards over the Sahel in West Africa during July. By the third decade of the month, it had reached Tidjikja in central Mauritania, the Algerian border in northeast Mali, Arlit in Niger, and Kalait in northeast Chad. Its position over Mali was further north than usual. Consequently, good rains fell throughout most of the summer breeding areas in the northern Sahel in Mauritania between Boutilimit, Tidjikja and Nema, in the Timetrine, Adrar des Iforas and southern Tamesna in Mali, in southern Tamesna and the Tanout area of Niger, and in central areas of Kanem, Batha and Biltine regions in Chad. As a result, ecological conditions were becoming favourable for breeding over a widespread area. On the other hand, dry conditions prevailed in Northwest Africa.

In the **Central Region**, the Inter-Tropical Convergence Zone (ITCZ) moved steadily northwards over central Sudan during July, reaching Abu Uruq in North Kordofan and Ed Damer in the Nile Valley by the end of the second decade. Consequently, light to moderate showers fell south of these areas, extending from Chad to Eritrea, while heavier rains fell near Umm Saiyala in North Kordofan. As a result, ecological conditions were becoming favourable for breeding. In Eritrea, light rains fell in the southern part of the western lowlands. In Yemen, little rain fell in the interior except for a couple of light showers in the Hadhramaut and Shabwah regions. Dry conditions prevailed on the coast and plateau in northern Somalia.

In the **Eastern Region**, the southwest monsoon arrived in Rajasthan in mid-July, considered as generally normal for most years. Consequently, light to moderate rains fell mainly during the last week of the month in Rajasthan and Gujarat, extending to

adjacent areas of Tharparkar and, to a lesser extent, Cholistan in Pakistan. Although up to 100 mm fell in West Rajasthan, there remained a 23% rainfall deficit compared to the long-term average. Ecological conditions continued to improve for breeding along both sides of the Indo-Pakistan border.



Area Treated

Control operations declined dramatically in July, treating less than 2,500 ha compared to more than 37,000 ha in June.

Eritrea 100 ha (July)

Saudi Arabia 2,180 ha (July)



Desert Locust Situation and Forecast

(see also the summary on page 1)

WESTERN REGION

Mauritania

• SITUATION

No locusts were seen during a survey in southern and central areas on 17-21 July.

• FORECAST

Scattered adults are likely to appear in the south and centre, and breed on a small scale in areas of recent rainfall, causing locust numbers to increase slightly.

Mali

• SITUATION

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

• FORECAST

Scattered adults are likely to appear in parts of Timetrine, Tilemsi Valley, the Adrar des Iforas, and southern Tamesna and breed on a small scale in areas of recent rainfall, causing locust numbers to increase slightly.

Niger

• SITUATION

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

• FORECAST

Scattered adults are likely to appear in southern parts of Tamesna and the Air Mountains, and breed on a small scale in areas of recent rainfall, causing locust numbers to increase slightly.

Chad

• SITUATION

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

• FORECAST

Scattered adults are likely to appear in southern parts of Kanem, Batha and Biltine, and breed on a small scale in areas of recent rainfall, causing locust numbers to increase slightly.

Senegal

• SITUATION

No reports were received during July.

• 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

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

• FORECAST

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

Morocco

• SITUATION

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

• FORECAST

No significant developments are likely.

Libya

• SITUATION

No reports were received during July.

• FORECAST

No significant developments are likely.

Tunisia

• SITUATION

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

• FORECAST

No significant developments are likely.

CENTRAL REGION

Sudan

• SITUATION

During July, scattered adults and a few small groups were maturing in the north along the Atbara River east of Ed Damer (1734N/3358E) and, to a lesser extent,

in the Nile Valley between Berber (1801N/3400E) and Karima (1832N/3148E). Limited breeding occurred near Abu Hamed (1932N/3320E) where isolated fourth instar hoppers were reported.

• FORECAST

Small-scale breeding will continue in Northern and River Nile States. An increasing number of adults will appear in summer breeding areas between Darfur and the Red Sea Hills, perhaps supplemented by a few small swarms from Saudi Arabia. Small-scale breeding will cause locust numbers to increase slightly in areas of rainfall.

Eritrea

• SITUATION

In early July, an immature swarmlet was seen near Adi-Keyh (1451N/3922E) and the Ethiopian border. Ground teams treated 100 ha on 11 July.

• FORECAST

Scattered adults are likely to appear in the western lowlands. If additional rainfall occurs, small-scale breeding will take place, causing locust numbers to increase slightly.

Ethiopia

• SITUATION

In early July, a swarm reportedly moved from the Adigrat (1417N/3928E) area in northern Tigray to adjacent areas of Eritrea. Remnants of earlier immature swarms were maturing in the Amhara highlands of South Wello near Dessie (1107N/3938E).

• FORECAST

A few small swarms may persist in the northern highlands, mature and disperse to breed on a limited scale.

Djibouti

• SITUATION

No reports were received during July.

• FORECAST

No significant developments are likely.

Somalia

• SITUATION

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

• FORECAST

No significant developments are likely.



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Egypt

• SITUATION

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

• FORECAST

No significant developments are likely.

Saudi Arabia

• SITUATION

During the first half of July, infestations declined in the spring breeding areas of the interior near Hail (2731N/4141E) as small immature adult groups and swarms moved southwest to the Asir Mountains near Medinah (2430N/3935E). Small mature groups and swarms were seen in the mountains as far south as Taif (2115N/4021E) and near Abha (1813N/4230E). Ground teams treated 2,180 ha. No locusts were seen during the second half of July.

• FORECAST

A few small adult groups and swarms may persist in parts of the Asir Mountains early in the forecast period as they move to summer breeding areas in Sudan and Yemen.

Yemen

• SITUATION

During the first decade of July, immature adult groups and swarms continued to appear in the highlands between Sana'a and Sada'a (1656N/4345E) as well as in the interior desert regions of Al Jawf and Shabwah. Scattered immature adults were seen during the remainder of the month in the interior between Marib (1527N/4519E) and Ataq (1435N/4649E) and, to a lesser extent, in Wadi Hadhramaut.

• FORECAST

Adult groups and small swarms are likely to concentrate in areas of green vegetation in Al Jawf, Marib, Shabwah and the northern plateau of Hadhramaut where they will mature and lay eggs in areas of recent rainfall. There is also a moderate risk that a few small groups or swarms could appear in the highlands and interior from spring breeding areas in Saudi Arabia in early August.

Oman

• SITUATION

No locusts were seen during surveys in the northern interior near Adam (2223N/5731E) in July.

• FORECAST

No significant developments are likely.

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

• FORECAST

No significant developments are likely.

EASTERN REGION

Iran

• SITUATION

No reports were received during July.

• FORECAST

No significant developments are likely.

Pakistan

• SITUATION

During July, scattered mature solitarious adults were seen at 10 places in Cholistan near the Indian border in Bahawalpur and Rahimyar Khan areas.

• FORECAST

Small-scale breeding will cause locust numbers to increase slightly in Lasbela, Tharparkar, Nara and Cholistan.

India

• SITUATION

During July, no locusts were seen during surveys carried out in Rajasthan and Gujarat.

• FORECAST

Small-scale breeding will cause locust numbers to increase slightly in Rajasthan and Gujarat.

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). 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.ideo.columbia.edu/maproom/.Food_Security/.Locusts/.Regional/.MODIS/index.html)
 - **MODIS.** Daily rainfall imagery in real time (http://iridl.ideo.columbia.edu/maproom/.Food_Security/.Locusts/index.html)
 - **RFE.** Rainfall estimates every day, decade and month (http://iridl.ideo.columbia.edu/maproom/.Food_Security/.Locusts/index.html)
 - **Greenness maps.** Dynamic maps of green vegetation evolution every decade (http://iridl.ideo.columbia.edu/maproom/Food_Security/Locusts/Regional/greenness.html)
 - **eLocust3 training videos.** A set of 15 introductory training videos are available on YouTube: https://www.youtube.com/playlist?list=PLjxRk5CAwvG_0iFxjZ5C2fLByF3jhvHOx
 - **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>)
 - **FAOLOCUST Twitter.** The very latest updates are posted on Twitter (<http://www.twitter.com/faolocust>)
 - **FAOLocust Facebook.** A social means of information exchange using Facebook (<http://www.facebook.com/faolocust>)
 - **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/elertssite>)

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

- **Desert Locust situation updates.** Archives
 - **CLCPRO/CRC/SWAC Locust Information Officer workshop final report.** Publications – Reports.

2014 events. The following activities are scheduled or planned:

- **CRC.** 29th Session of the Commission, Abu Dhabi, UAE (23-27 November)
 - **SWAC.** 50th Anniversary of the Commission, Tehran, Iran (15 December)
 - **SWAC.** 29th Session of the Commission, Tehran, Iran (16-18 December)
 - **EMPRES/WR.** 13th EMPRES Liaison Officer Meeting, Ouagadougou, Burkina Faso (1-5 December)
 - **EMPRES/WR.** 10th Steering Committee Meeting, Ouagadougou, Burkina Faso (8-9 December)



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



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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.

PLAQUE

- 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

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