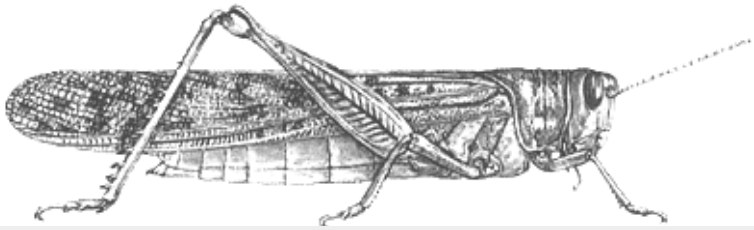


DESERT LOCUST BULLETIN

FAO Emergency Centre for Locust Operations

No. 262
(4 August 2000)

General Situation during July 2000
Forecast until mid-September 2000

Only a few countries reported Desert Locust during July and the situation remains calm. Little information was provided by the Sahelian countries where locust habitat conditions are improving but where no surveys were in progress except in Niger. In Morocco, 456 ha were treated against hopper and fledgling groups. Breeding will take place during the forecast period in the Sahelian countries. Its scale needs to be assessed but is likely to be only at a low level. Elsewhere, only a few scattered adults were reported in Sudan, Somalia and Pakistan where small scale breeding may occur during the forecast period .

Western Region. Only two immature adults were reported in **Mauritania**, near Aioun El Atrouss. In **Morocco**, 456 ha infested by groups of hoppers mixed with fledglings were located and treated in the Drâa and Ziz wadis around the latitude 3030N. Some adults were present in south-eastern **Algeria**. No locusts were reported from **Libya**. No reports were received from other countries in the Region. A small scale breeding may be in progress in southern Mauritania, north-eastern **Mali** and northern **Niger** where good rainfall occurred during the month. These areas require regular monitoring in the coming months.

Central Region. Only scattered mature adults were present in the summer breeding areas of North Kordofan, in **Sudan**, and in the north-western part of **Somalia**. Small scale breeding may be in progress in some parts of the interior of Sudan where sufficient rainfall occurred for the last three months.

Eastern Region. No locusts were seen from the end of May to early July in eastern **Iran**. Low numbers of adults were still present in Baluchistan, **Pakistan**, and started to appear in the eastern deserts, near the Indian border, during the first half of July. No locusts were reported from Rajasthan, **India**, from mid-June to the end of July. These low populations indicate that the summer breeding will be on a very small scale.

The FAO Desert Bulletin is issued monthly, supplemented by Updates during periods of increased Desert Locust activity, and is distributed by fax, e-mail, FAO pouch and airmail by the Locusts and Other Migratory Pests Group, AGP Division, FAO, 00100 Rome, Italy. It is also available on the Internet.
Telephone: +39 06 570.52420 (7 days/week, 24 hr)
Facsimile: +39 06 570.55271
E-mail: eclo@fao.org
Telex: 610181 FAO 1
Internet: http://www.fao.org/news/global/locusts/locuhome.htm

No. 262

DESERT LOCUST BULLETIN

Weather & Ecological Conditions in July 2000

The rainy season has started in the northern part of the Sahel from Mauritania to Sudan where conditions are now quite favourable for breeding. In the summer breeding areas of South-West Asia, the monsoon has started during the first dekad of the month and conditions are slowly becoming suitable for breeding.

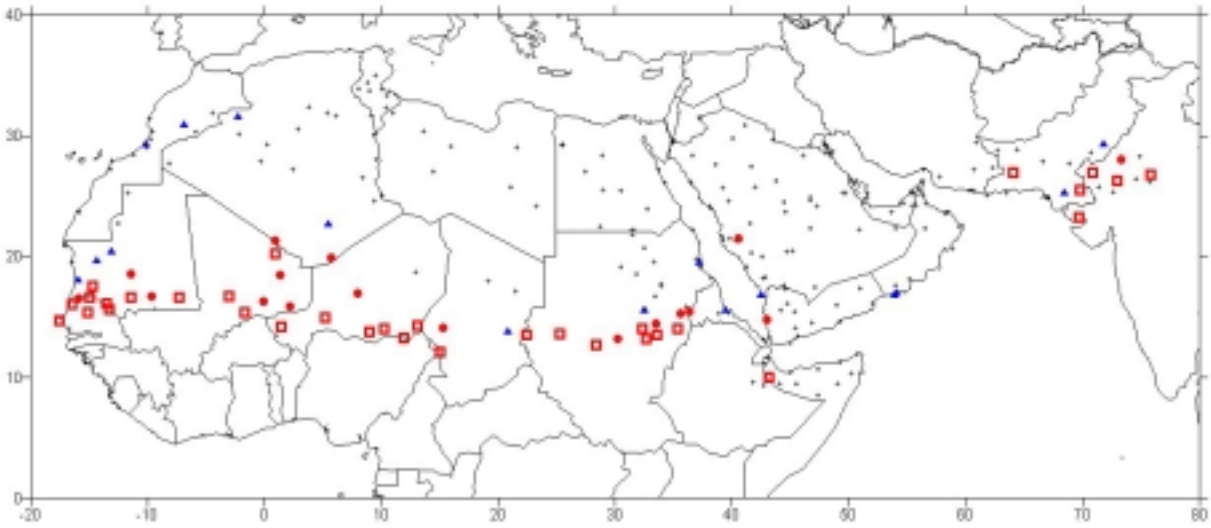
In **West Africa**, the Inter-Tropical Convergence Zone (ITCZ) broadly fluctuated between 15ϒN and 20ϒN during July. As a result some moderate to very heavy rains fell in most parts of the northern Sahel (see map). Most of these rains were equal to or above the thirty year average for July in Senegal, Mauritania and Niger. In Mali, however, the reported rainfalls were quite below the expected level for the month, except in the Adrar des Iforas where 80 mm of rain fell in Tessalit which is almost three times the monthly long term average. Winds were highly variable over the Sahelian countries as a result of the fluctuating ITCZ position. As a result of these relatively good rains, most of the vegetation in northern Sahel is greening and conditions are becoming favourable for breeding.

In **North-West Africa**, only light rains were reported from a few stations in the north-western part of the Region. During the third dekad of July, light to moderate showers were reported in the southern Hoggar Mountains of southern Algeria. Analysis of SPOT-Vegetation satellite imagery suggested that current vegetation continues to dry out or is completely dry in locust areas of all countries in the Region.

In **Eastern Africa**, prevailing winds were mainly from the north and the north-east. Moderate to locally heavy rains were reported in the northern Sahelian belt of Sudan where seasonal vegetation is greening and conditions becoming favourable for breeding. On the Red Sea coast, some light rains were locally reported in Sudan and Eritrea but most of the vegetation is drying out, especially on the central northern coastal plains of Somalia where no rains fell during the month.

In the **Near East**, only a few light to moderate rains fell in some areas of the Tihama coastal plain of southern Saudi Arabia and western Yemen where patches of vegetation are greening. Nevertheless, the vegetation remained generally dry and conditions continued to be unfavourable for breeding along the Red Sea and Gulf of Aden coastal plains, in the interior of Saudi Arabia, and on the Batinah coast of northern Oman.

In **South-West Asia**, the monsoon started during the first dekad of July. Most stations located in eastern Pakistan and western India have reported heavy rains. Vegetation in greening and conditions were recently reported to be highly favourable for breeding. Dry conditions persisted in Baluchistan of western Pakistan and south-eastern Iran.



July 2000 rainfall

+ Unsignificant - *Nulle* (< 1 mm)

▲ Light - *Faible* (1-20 mm)

Pluie mensuelle - Juillet 2000

● Moderate - *Moyenne* (20-50 mm)

□ Heavy - *Forte* (> 50 mm)

Area Treated

Morocco	456 ha	(18-31 July)

Desert Locust Situation and Forecast

(see also the summary on the first page)

WEST AFRICA

Mauritania

• **SITUATION**

Only two isolated solitarious immature adults were observed on 10 July at two locations near Aioun El Atrouss (1644N/0858W and 1610N/1022W). Routine surveys have not yet started and no other locust activity was reported during the month.

• **FORECAST**

Low numbers of adults are expected to be present and breed in the parts of the southern Tagant, Brakna, Assaba and the two Hodhs which received rains. The scattered hoppers which may consequently appear will be difficult to detect. No activity is likely in the north due to dry conditions.

Mali

• **SITUATION**

No report received for July.

• **FORECAST**

Low numbers of locusts may be present in the Adrar des Iforas. Small scale breeding is likely to occur in areas of recent rainfall or run-off during the forecast period.

Niger

• **SITUATION**

No report on the current survey in Tamesna and central Aïr was received.

• **FORECAST**

The scattered populations previously reported in the Aïr mountains may have bred in areas where rainfall occurred in June and July. Low numbers of adults of the next generation may appear at the end of the forecast period.

Chad

• **SITUATION**

No reports received.

• **FORECAST**

No significant developments are likely.

Senegal

• **SITUATION**

No reports received.

• **FORECAST**

No significant developments are likely.

Burkina Faso, Cape Verde, Gambia, Guinea Bissau, and Guinea Conakry

• **FORECAST**

No significant developments are likely.

NORTH-WEST AFRICA

Algeria

• **SITUATION**

A few scattered adults were still observed in the south-east near Djanet during July.

• **FORECAST**

The residual populations are expected to breed at a small scale in the south-east, in the areas of recent rainfall or run-off. Low number of hoppers could appear during the forecast period.

Morocco

• **SITUATION**

On 18 July, a few 3rd and 4th instar hopper groups (1 to 2 hoppers per sq.m.) were located south of Errachidia, at Bour Khamlia (3030N/0425W), over a 70 ha cultivated area. On 21 July, 5th instar hoppers mixed with fledglings at maximum densities of 2 individuals per sq.m. were observed at Bour Khamlia and El Khraoua (3100N/0410W) respectively on 100 and 15 ha. At a third place in the same area, 150 ha were infested by 3rd to 5th instar hoppers and fledglings at an average density of 2 individuals per sq.m. Nomads reported a similar situation from Foum Bousseroual (3003N/0415W). All the identified patches were treated between 20 and 31 July.

On 26 July, small groups of solitary adults at densities of 6-7 per sq.m. were located in the Ouarzazate Province, near the Aît Ali Ouhassou dam (3030N/0600W). The 50 ha infested area was treated on 27 July.

• **FORECAST**

The infested patches having all been treated and conditions no longer being suitable, no further significant developments are likely.

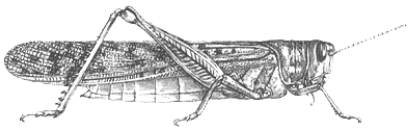
Libyan Arab Jamahiriya

• **SITUATION**

No locusts were reported during July.

• **FORECAST**

No significant developments are likely.



Tunisia

• **SITUATION**

No reports received.

• **FORECAST**

No significant developments are likely.

EASTERN AFRICA

Sudan

• **SITUATION**

During surveys carried out in Northern Kordofan on 14- 21 July, scattered mature adults were seen near Korib (1607N/2947E), near Nagat (1609N/2943E) and west of Abu Zaema (1835N/2814E).

• **FORECAST**

Small scale breeding may occur in some areas of Northern Kordofan, Northern Darfur and Kassala which have received good rainfall during the past three months. Low numbers of hoppers are likely to appear during the forecast period.

Eritrea

• **SITUATION**

No locusts were reported along the Red Sea coast during July.

• **FORECAST**

No significant developments are likely.

Somalia

• **SITUATION**

During surveys carried out from 27 June to 2 July, scattered mature adults were seen in the north-western part of the country in Wadi Togga Dhud, near Meleden (1028N/4948E) and near Ufeyn (1038N/ 4946E), and in the Nogal Valley, near Xalin (0904N/ 4838E).

• **FORECAST**

Low numbers of adults may persist in a few coastal and subcoastal areas. No significant developments are likely.

Ethiopia

• **SITUATION**

No locusts were seen during a survey carried out in the summer breeding areas in July.

• **FORECAST**

No significant developments are likely.

Djibouti

• **SITUATION**

No reports received.

• **FORECAST**

No significant developments are likely.

Kenya, Tanzania and Uganda

• **FORECAST**

No significant developments are likely.

NEAR EAST

Saudi Arabia

• **SITUATION**

No locusts were reported along the Red Sea coastal plains or in the interior during July.

• **FORECAST**

No significant developments are likely.

Yemen

• **SITUATION**

No locusts were reported during surveys carried out in the areas of recent rainfall of the Tihama coastal plains from 11 to 17 July.

• **FORECAST**

Low numbers of adults may persist in areas of recent heavy rainfall on the Tihama coastal plains.

Egypt

• **SITUATION**

No locusts were seen during surveys carried out during July on the Red Sea coastal plains from Safaga to the Sudanese border, in adjacent subcoastal areas and in several parts of the Western Desert.

• **FORECAST**

No significant developments are likely.

Kuwait

• **SITUATION**

No reports received.

• **FORECAST**

No significant developments are likely.

Oman

• **SITUATION**

The situation is reported to be calm and no surveys were conducted during July.

• **FORECAST**

No significant developments are likely.

United Arab Emirates

• **SITUATION**

No reports received.

• **FORECAST**

No significant developments are likely.

Bahrain, Iraq, Israel, Jordan, Qatar, Syria Arab Republic and Turkey

• **FORECAST**

No significant developments are likely.

SOUTH-WEST ASIA

Iran

• **SITUATION**

Two reports indicated that no locusts were seen during surveys carried out from 27 May to 19 June and from 24 June to 3 July in Hormozgan and Kerman provinces.

• **FORECAST**

No significant developments are likely.

Pakistan

• **SITUATION**

During the first fortnight of July, low numbers of solitarious maturing adults, up to 3 per ha, were present in the Cholistan, Tharparkar and Lasbela deserts.

• **FORECAST**

Small scale breeding may start in the areas of recent rainfall in the Tharpakar desert and, to a lesser extent, in the interior of Baluchistan.

India

• **SITUATION**

No locusts were seen during surveys carried out in Rajasthan during the second half of June and July.

• **FORECAST**

Small scale breeding may start in the areas of recent rainfall in Rajasthan. No significant developments are likely.

Afghanistan

• **SITUATION**

No reports received.

• **FORECAST**

No significant developments are likely.

Other Locust species

Italian Locust, *Calliptamus italicus*, plague in Central Asia. According to official source, control operations have been carried out on 7,3 million ha in **Kazakhstan** from the beginning of the campaign, in May, to the end of July. Swarm control is now in progress in north-western, central and north-eastern parts of the country. As during summer 1999, the most heavily infested areas of **Russia**. are concentrated along the Kazakh border where 1,3 million ha were already treated.

Announcements

Locust reporting. Affected countries are kindly reminded to make sure that locust situation reports are sent to FAO HQ by the 25th day of the month so the information can be included in the FAO 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.

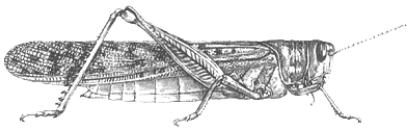
Reporting by email. Affected countries are encouraged to send completed FAO Locust Survey Forms with a brief interpretation of the results by email to eclo@fao.org.

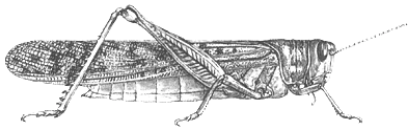
FAO Commission for Controlling the Desert Locust in the Eastern Region of its Distribution Area in South West Asia. The 13th session of the Executive Committee and the 22nd session of the Commission will be held in Tehran, I.R. Iran, on 17-21 September.

Monthly rainfall maps. Maps of monthly rainfall for 2000 (January - July) are available on the locust webpages at: http://www.fao.org/news/global/locusts/archiv00.htm.

Pictures from the recent national training course on Desert Locust survey and control in Pakistan are available on the locust webpages at: http://www.fao.org/news/global/locusts/paktrain/pakmain.htm.

The 1999 Report of the Pesticide Referee Group is available for downloading on the locust webpages at: http://www.fao.org/news/global/locusts/reports1.htm.





No. 262

DESERT LOCUST BULLETIN

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 km^2
- band: 1 - 25 m^2

SMALL

- swarm: 1 - 10 km^2
- band: 25 - 2,500 m^2

MEDIUM

- swarm: 10 - 100 km^2
- band: 2,500 m^2 - 10 ha

LARGE

- swarm: 100 - 500 km^2
- band: 10 - 50 ha

VERY LARGE

- swarm: 500+ km^2
- 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

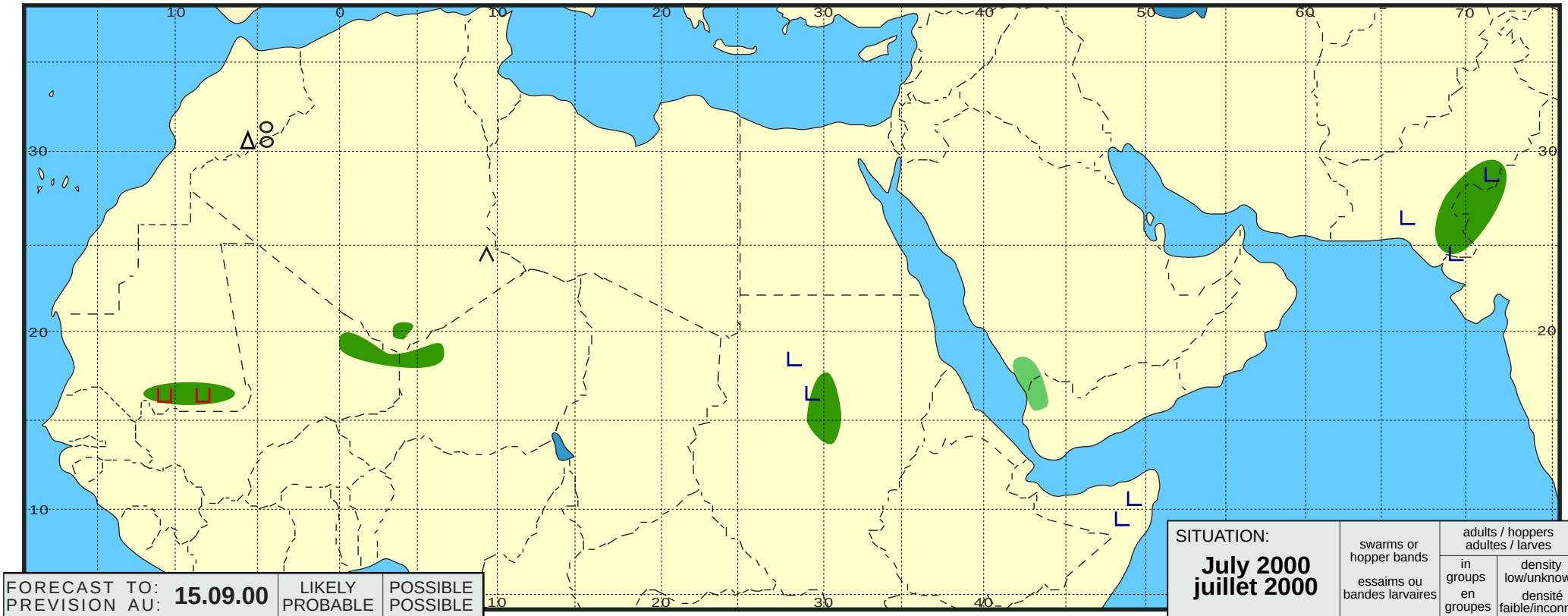
- period without widespread and heavy infestations by swarms.

REMISSION

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

Desert Locust Summary
Criquet pèlerin - Situation résumée

262



FORECAST TO: PREVISION AU: **15.09.00**	LIKELY PROBABLE	POSSIBLE POSSIBLE
favourable breeding conditions conditions favourables à la reproduction		
major swarm(s) essaim(s) important(s)		
minor swarm(s) essaim(s) limité(s)		
non swarming adults adultes non essaimant		

SITUATION: **July 2000 juillet 2000**	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	◣	◺	L
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)	◘	◙	⊟