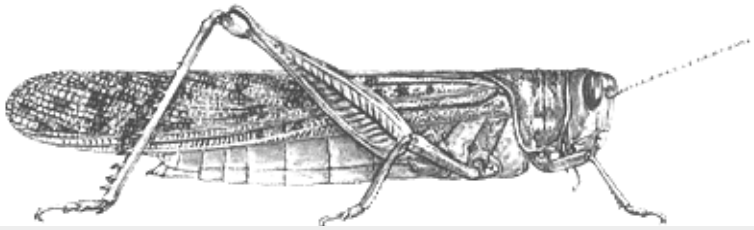

DESERT LOCUST BULLETIN

FAO Emergency Centre for Locust Operations

No. 266
(6 Dec 2000)

General Situation during November 2000
Forecast until mid-January 2001

An outbreak continued during November in central Mauritania where control operations are in progress. The important locust populations reported in northern Mali during September and October have declined. Locust numbers are expected to increase in northern Mauritania, southern Algeria, and southern Morocco in the coming weeks. Elsewhere, scattered adults were present in northern Niger, southern Egypt, eastern Sudan and in northern Somalia. Good rains have fallen on both sides of the Red Sea where small scale breeding is expected during the forecast period.

Western Region. The small outbreak that began last month in central and western **Mauritania** continued as more hopper groups and bands formed during November. By the end of the month, small swarms had started to form and another generation of breeding was detected. Ground control operations treated over 10,000 ha during the month. Current infestations may extend into areas of recent rainfall in Inchiri and into adjacent areas of southern **Morocco**. There is a strong possibility that some adults have already moved into the extreme north of Mauritania and started to lay in areas that have received rainfall. These populations are likely to be supplemented by small swarms arriving from current infestations. In northern **Mali**, few locusts remain suggesting that the adult groups and swarms reported since early September may have migrated into southern **Algeria** or northern Mauritania where they dispersed. There were unconfirmed reports of locusts in both areas. Scattered adults were present in north-western **Niger**.

Central Region. Some adults were present in southern **Egypt**, eastern **Sudan**, and in northern **Somalia**. Good rains fell for the second consecutive month along coastal plains on both sides of the Red Sea in Sudan, **Eritrea**, **Saudi Arabia** and **Yemen**. Although no locust activity was reported, numbers are expected gradually to increase during the forecast period as a result of small scale breeding.

Eastern Region. Dry conditions prevailed and no locusts were reported in **Pakistan** and **India**. No significant developments are likely in the Region.

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.
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Internet: http://www.fao.org/news/global/locusts/locuhome.htm

No. 266

DESERT LOCUST BULLETIN

Weather & Ecological Conditions in November 2000

Breeding conditions remained favourable in some parts of central Mauritania and are improving in northern Mauritania where good rains fell during the first half of November. Elsewhere in West Africa, the vegetation is still green in some wadis of southern Algeria, northern Mali and northern Niger. Conditions were improving on the coastal plains on both sides of the Red Sea where moderate to heavy rains fell for the second consecutive month.

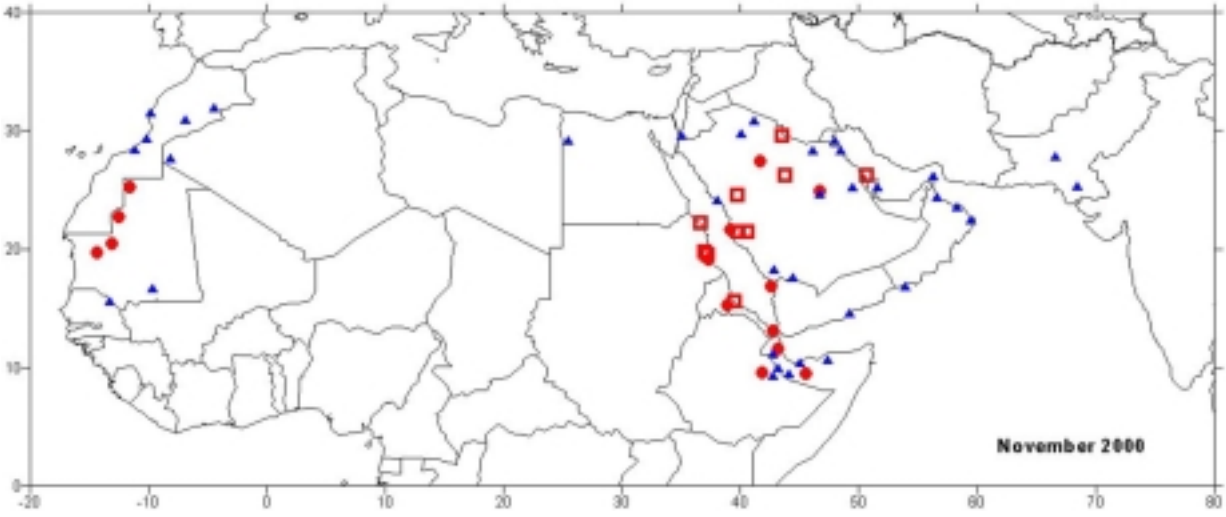
In **West Africa**, moderate rains fell over northern Mauritania from 12-14 November (22mm at Atar, 20mm at Zouerate and 17mm at Bir Moghrein) while no rainfall was reported in the other Sahelian countries (see map). As a result, vegetation should start to become green in northern Mauritania during the next few weeks. Vegetation was still green and conditions were favourable for breeding in central and western Mauritania from western Inchiri to south-western Tagant where moderate rains fell during the second dekad of the month. Elsewhere in Mauritania, in the Adrar des Iforas of northern Mali, and in Air of northern Niger, green vegetation was limited and confined to wadis and low-lying areas. Vegetation was dry or becoming dry and conditions were generally unfavourable for breeding in Tamesna, Niger and in Chad.

In **North-West Africa**, dry conditions prevailed with the exception of central Morocco where light rain fell. Light to moderate rains may have also fallen in southern Morocco near the Mauritanian border as indicated by Meteosat satellite imagery. Vegetation remained dry and conditions were unfavourable for breeding in the Region except for wadis near the Hoggar Mountains in southern Algeria where ecological conditions were reported to be favourable for breeding.

In **Eastern Africa**, moderate to heavy rains were reported on the Red Sea coast for the second consecutive month where vegetation was green or becoming green in most areas from Port Sudan to Assab, Eritrea. Light to moderate rains fell on the north-western coastal plains of Somalia. In the interior of Sudan, no rainfall was reported, vegetation was drying out and conditions were no longer favourable for breeding.

In the **Near East**, moderate to heavy rains fell on several different days during the month on the Red Sea coastal plains from Jeddah, Saudi Arabia to Zabid, Yemen. As a result, vegetation is greening in most of these areas and conditions are favourable for breeding. Light rain fell over parts of the coastal plains of northern Oman between Sur and the Musandam Peninsula, but vegetation remained dry.

In **South-West Asia**, no rain was reported in November and dry conditions prevailed in the Region.



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

Mauritania 10,655 ha (1-30 November)

Desert Locust Situation and Forecast

(see also the summary on the first page)

WEST AFRICA

Mauritania

• **SITUATION**

The small outbreak that began last month in central and western Mauritania continued as more hopper groups and bands formed during November in northern Brakna, eastern Trarza, south-western Adrar, and in Inchiri. The infestations were confined to an area east of Nouakchott between Tidjikja, Boutilimit and Akjoujt. Parts of this area could not be accessed by survey and control teams. By the end of the month, the hoppers had reached fourth and fifth instar with densities up to 45 hoppers per sq. m. Fledging was in progress and small swarms had started to form. On the 29th, there was a report of new hatchlings and small first and second instar bands at densities up to 80 hoppers per sq. m. within 3,200 ha in the Tamkarkart area (ca. 1910N/1300W) of south-western Adrar. This suggests that another generation of breeding had taken place from laying during the second week of November. Although there was no confirmation that adults had started to move northwards, nomads indicated that some locusts were present in the extreme north. Ground control operations increased in the above areas throughout the month, treating a total of 10,655 ha during November.

• **FORECAST**

The formation of small swarms will continue early in the forecast period in the currently infested areas. As the vegetation becomes dry and during periods of warm southerly winds, these swarms are expected to move north into northern Inchiri and Tiris-Zemmour and slowly mature, perhaps laying in areas of any rainfall. Second generation hoppers in Tamkarkart as well as other nearby areas will continue to form bands and slowly mature. By the end of the forecast period, additional swarms could start to form resulting in a second wave of small swarms moving northwards into northern Mauritania in January.

Mali

• **SITUATION**

Low numbers of solitarious and transiens immature and mature adults mixed with fourth to fifth instar hoppers were present at 23 locations in Timetrine, the Tilemsi Valley and the central Adrar des Iforas during surveys carried out on 13-28 November. This suggests that the hopper bands present during October fledged and many of the resulting adults probably moved towards southern Algeria or northern Mauritania where they may have dispersed.

• **FORECAST**

As the vegetation becomes dry, only low numbers of adults are likely to persist in a few wadis of the Adrar des Iforas and no significant developments are expected.

Niger

• **SITUATION**

Low numbers of immature adults were seen at four locations in green wadis in south-western and south-eastern Aïr during surveys carried out on 6-15 November.

• **FORECAST**

A few isolated adults may persist in southern Air; however, no significant developments are expected.

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**

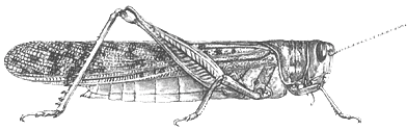
No significant developments are likely.

NORTH-WEST AFRICA

Algeria

• **SITUATION**

No locusts were seen by any of the three survey teams in the Hoggar and Tassili regions during November. There was an unconfirmed report of some adult populations in several areas of southern and south-western Hoggar. Details are awaited.



• **Forecast**

There is a possibility that small groups of adults may have appeared from northern Mali during October and November and dispersed into the extreme south. If so, these could persist and eventually lay in wadis near the Hoggar Mountains where favourable conditions have been reported.

Morocco

• **Situation**

No locusts were reported during November in the south near the Mauritanian border at Bir Gandouz, Techla and Aousard, and further north near Galtat Zemmour.

• **Forecast**

Low numbers of locusts may be present in parts of the south where small scale breeding could occur if rains recently fell. Moreover, a few small swarms could appear in these areas from central and western Mauritania during periods of warm southerly winds.

Libyan Arab Jamahiriya

• **Situation**

No reports received.

• **Forecast**

No significant developments are likely.

Tunisia

• **Situation**

No reports received.

• **Forecast**

No significant developments are likely.

EASTERN AFRICA

Sudan

• **Situation**

A few mature solitarious adults were present at 5 locations in the winter breeding areas on the Red Sea coastal plains around Suakin (1908N/3717E) during surveys carried out on 23-24 November.

• **Forecast**

Low numbers of solitarious adults are likely to appear and breed in areas of recent rainfall along all the Red Sea coastal plains from Port Sudan to Karora.

Eritrea

• **Situation**

No locusts were seen during surveys along the Red Sea coast during November.

• **Forecast**

Low numbers of adults could start to appear and breed in a few places along the coastal plains north of Massawa and near Foro during the forecast period. No significant developments are likely.

Somalia

• **Situation**

Low numbers of immature adults were seen in a few green wadis along the coastal plains north of Erigavo at Xidid (1104N/4725E) and east of Berbera at Biyodader (1024N/4527E) during surveys on 8-25 November. No other locusts were seen on the north-western escarpment or coastal plain.

• **Forecast**

Low numbers of adults may persist and mature in a few areas where ecological conditions are favourable. No significant developments are likely.

Ethiopia

• **Situation**

No locusts were reported during November.

• **Forecast**

No significant developments are likely.

Djibouti

• **Situation**

No locusts were seen during surveys carried out on 20-23 November along the coastal plains near Djibouti.

• **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 November.

• **Forecast**

Isolated adults may be present near Jizan where numbers could gradually increase as a result of breeding in areas where good rains fell during the past two months.

Yemen

• **Situation**

No reports received

• **Forecast**

Low numbers of solitarious adults are likely to be present in a few places of the Red Sea coastal plains where small scale breeding is expected to occur in areas of recent rainfall. Consequently, locust numbers will increase during the forecast period.

Egypt

• **Situation**

During surveys carried out in November, isolated solitarious adults mixed with grasshoppers were seen at a few farms in the agricultural scheme near the Sudanese border at Sharq Oweinat (2234N/2834E). No locusts were reported from the Red Sea coastal plains, adjacent subcoastal areas or in the oases of the Western Desert.

• **Forecast**

No significant developments are likely.

Kuwait

• **Situation**

No reports received.

• **Forecast**

No significant developments are likely.

Oman

• **Situation**

No locusts were seen during surveys carried out in northern Oman from 18 October to 5 November.

• **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**

No locusts were seen during surveys carried out in the Hormozgan, Kerman and Bushehr Provinces on 6 November.

• **Forecast**

No significant developments are likely.

Pakistan

• **Situation**

No locusts were reported during the first half of November.

• **Forecast**

A few isolated adults may have moved towards the winter and spring areas of Baluchistan. No significant developments are likely.

India

• **Situation**

No locusts were reported during the first half of November.

• **Forecast**

No significant developments are likely.

Afghanistan

• **Situation**

No reports received.

• **Forecast**

No significant developments are likely.

Announcements

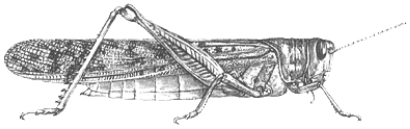
Locust reporting. Affected countries are kindly reminded to make sure that locust situation reports are sent to FAO HQ by the 25th day of the month so the information can be included in the FAO bulletin for the current month; otherwise, it will not appear until the following month. Reports should be sent even if no locusts were found or if no surveys were conducted.

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

Locust survey in Egypt. Photos of a survey in the Western Desert are available on the Internet at: http://www.fao.org/NEWS/GLOBAL/locusts/EGY0011/EGY.htm

EMPRES Consultative Committee. The 3rd meeting will be held in Rome on 7-8 December.

EMPRES (Desert Locust) Western Region Programme. A Planning Workshop: EMPRES activities in the Western Region – Phase I: Pledges and operations, will be held in Nouakchott, Mauritania from 10-15 February 2001.



The Commission for Controlling the Desert Locust in the Central Region. The 23rd Session will be held in Cairo, Egypt in April 2001.

The Commission for Controlling the Desert Locust in North-West Africa. The 23rd Session will be held in Algiers, Algeria from 2-7 June 2001.

Desert Locust Control Committee. The 36th Session will be held in Rome from 24-28 September 2001.

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

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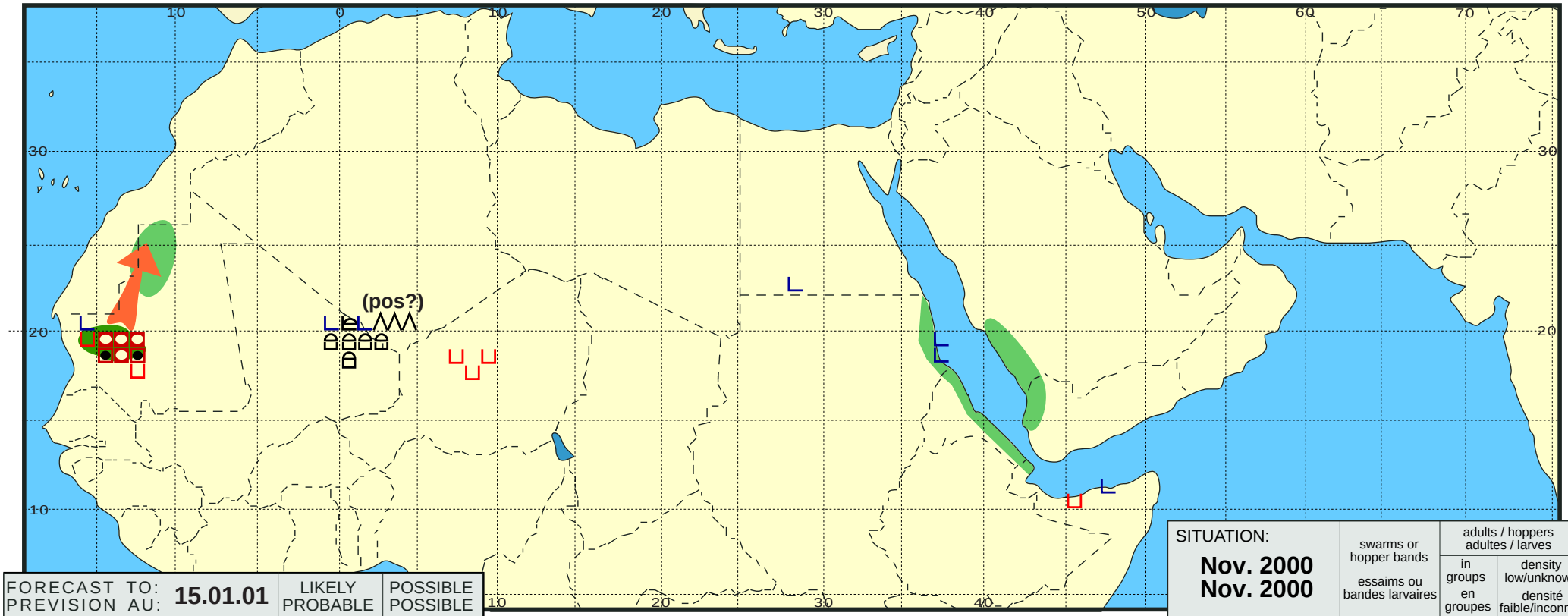

FORECAST TO: PREVISION AU: **15.01.01**	LIKELY PROBABLE	POSSIBLE POSSIBLE
favourable breeding conditions conditions favourables à la reproduction		
major swarm(s) essaim(s) important(s)		
minor swarm(s) essaim(s) limité(s)		
non swarming adults adultes non essaimant		

SITUATION: **Nov. 2000** **Nov. 2000**	swarms or hopper bands essaims ou bandes larvaires	adults / hoppers adultes / larves: in groups en groupes	adults / hoppers adultes / larves: 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)	◘	◙	⍾