



FAO



EMERGENCY CENTRE FOR LOCUST OPERATIONS

DESERT LOCUST BULLETIN No. 208



GENERAL SITUATION DURING DECEMBER 1995 FORECAST UNTIL MID-FEBRUARY 1996

Desert Locust swarms persisted along both sides of the Red Sea during December. Control operations were carried out in Saudi Arabia and to a lesser extent in Sudan against several small to medium sized swarms which were laying on the coastal plains. Conditions will remain favourable for breeding as a result of rainfall during the month. In Mauritania, control operations continued against maturing swarms near Nouakchott, and a few small groups of hoppers and adults were present in the north where they are expected to slowly mature. Unusually heavy rains fell in Mauritania and over the Arabian Peninsula during the month. Consequently, the situation demands careful monitoring in the coming months and control measures will continue to be required to prevent a significant increase in locust numbers.

Breeding occurred along the Red Sea coastal plains of Saudi Arabia where several swarms were seen laying eggs and hopper bands started forming by the end of the month. A few small swarms continued to appear along the southern coast of Sudan and laid eggs. However this was on a much smaller scale than Saudi Arabia and was confined to the Tokar Delta and the coastal plains south to the Eritrean border. No information was received from Eritrea, but the situation is expected to be similar to Sudan. Low numbers of adults are probably present in a few places along the coastal plains of Egypt, Yemen and northern Somalia. During the forecast period, hopper bands and a limited number of new swarms will form primarily in Saudi Arabia and to a lesser extent in Sudan and perhaps Eritrea. Some of these may start to move towards the spring breeding areas of the interior of Saudi Arabia by the end of the forecast period. During December, Saudi Arabia treated nearly 13,000 ha and Sudan treated 7,600 ha.

Control operations continued against maturing swarms near Nouakchott in Mauritania, treating almost 3,000 ha from 1-20 December. Small infestations of hoppers and adults, some gregarious, were present in parts of northern Mauritania where widespread rains occurred during the month and in adjacent areas of south-western Morocco. Locusts are expected to slowly mature and at the end of the forecast period, adults and perhaps a few small swarms may move north towards Morocco if temperatures increase.

Widespread and heavy rains fell over the Persian Gulf and the north-eastern Arabian Peninsula causing flooding in some areas. Although there were few locusts in the area to take advantage of such rains, conditions could remain favourable for several months and allow any locusts which move out of the Red Sea area to breed during the spring.

In South-West Asia, significant rains fell along the coast and in the interior of Baluchistan in Pakistan and probably in adjacent areas of Iran. Breeding was reported at one location in the interior of Pakistan and scattered adults may be present in other areas of recent rains.

The FAO Desert Locust 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 Locust, Other Migratory Pests and Emergency Operations Group, AGP Division, FAO, 00100 Rome, Italy. It is also available on the Internet.

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WEATHER & ECOLOGICAL CONDITIONS DURING DECEMBER 1995

Based on field reports, METEOSAT and NOAA satellite imagery, and Météo-France synoptic and rain data. Rainfall terms: light = less than 20 mm of rain; moderate = 20 - 50 mm; heavy = more than 50 mm.

Green vegetation persisted in northern Mauritania primarily west of 10W early in the month. Unusual rainfall occurred over a widespread area of northern and central Mauritania from Kiffa to Zouerate during the first two dekads. Several locations such as Ouadane, Atar and Tidjikja received about one third of their annual average. Nouakchott was reported to be flooded after receiving more than 70 mm. As a result, conditions will remain favourable for breeding over large parts of northern Mauritania. However, low temperatures are expected to slow down locust maturation and limit migration. In other countries in West Africa, no cloud activity was observed and no significant rains were reported. Ecological conditions are not expected to be favourable for breeding at this time of the year.

Cloud activity along the western Red Sea coast was limited to the plains extending from Massawa in Eritrea to the Tokar Delta in Sudan. Moderate rains fell in the Tokar Delta and along the coastal plains to the Eritrean border at times during the month. Some of these probably extended to the northern coastal plains of Eritrea. As a result, breeding conditions are likely to improve in these areas. North of Port Sudan, conditions are not expected to be favourable for breeding along the coastal plains until the Halaib-Shalatein area where recent rains were reported. Conditions were reported to be dry on the north-western coastal plains of Somalia in late November, and dry weather is likely to have persisted throughout December.

Moderate rains and favourable ecological conditions were reported in Saudi Arabia near Madinah and adjacent areas of the coast as well as in Qunfudah. Mecca received 27 mm on the 30th. Unusually heavy rains fell during December over the north-eastern Arabian Peninsula. Damage caused by flooding occurred in several areas of UAE and, to a lesser extent, on the northern coast of Oman. As a result, breeding conditions will improve in north-eastern Saudi Arabia, Qatar, Bahrain, coastal and interior areas of UAE and along the northern Batinah and near Buraimi of Oman.

In North-West Africa, breeding conditions are expected to be favourable as a result of light to heavy rainfall in the Souss Valley of Morocco and in the extreme south-west during November. Dry conditions and decreasing temperatures were reported in Algeria during the last two dekads of November. A few light rains were reported south of the Atlas Mountains as a result of Mediterranean depressions during December, but these probably were not sufficient to improve ecological conditions. Light rains fell throughout the month in southern Tunisia. Consequently, breeding conditions may improve.

In South-West Asia, light to moderate rains were received on the coast and interior of Baluchistan in Pakistan. Rains probably extended into adjacent areas of Iran. As a result, breeding conditions are expected to improve. No significant rains were reported from India where dry conditions are expected to persist.



AREA TREATED

Mauritania	2,725 ha	(1-20 December)
Pakistan	no details	(9-11 December)
Saudi Arabia	12,830 ha	(9-14 December)
Sudan	7,600 ha	(29 November - 5 December)



DESERT LOCUST SITUATION

Please see the last section of this Bulletin for a definition of terms used in reporting the current locust situation.

WEST AFRICA

MAURITANIA

Control operations continued near Nouakchott against immature swarms, treating a total of 2,725 ha during the first two dekads of December. Elsewhere, scattered adults and a few small immature groups were reported north of Nouakchott primarily in the Tijirit area and, to a lesser extent, in Inchiri near Akjoujt (1945N/1123W), in Adrar and southern Tiris Zemmour near Ouadane (2056N/1137W). A few hoppers and adults persisted east of Akjoujt in the Amatlich area (ca. 1947N/1334W). There was an unconfirmed report of hopper bands north of Tidjikja at Ech Charaniya (1918N/1140W) on the 1st December. No locusts were reported in north-eastern Tiris Zemmour.

NIGER

A late report stated that a few immature and mature adults were present in the south-east north of Maradi at 1429N/0640E and 1408N/0757E, and at several locations from north of Tanout (1500N/0855E) to north-east of Diffa (1353N/1251E) on 20-28 October.

No locust information was received from other countries in the Region up to 31 December.

NORTH-WEST AFRICA

MOROCCO

Small patches of first and second instar hoppers bands were reported in the extreme south-west near Tichla (2146N/1450W) during the third dekad of November.

ALGERIA

No locusts were reported on 11-30 November.

No locust information was received from other countries in the Region up to 31 December.

EASTERN AFRICA

SUDAN

In late November and during the first half of December, several small maturing swarms continued to be reported on the southern Red Sea coast in the Tokar Delta and neighbouring Khor Baraka (1811N/3737E). A total of 7,600 ha were treated by air on 29 November - 5 December. High densities of solitary adults were seen copulating on the coastal plains south of Tokar Delta near Adobana (1810N/3817E) on about 750 ha on 28 November. On 13 December, one swarm was seen laying in the same area. During the second half of the month, scattered mature and copulating adults continued to be reported in the Tokar Delta and near Adobana. On the 28th, a dense swarm was seen copulating at Khor Hamalieb (1811N/3814E) on 300 ha. No locusts were reported along the coast north of Suakin up to 5 December.

SOMALIA

Scattered mature adults were reported from a few places on the north-western coast near Harshow (1110N/4728E) and Humbeis (1113N/4648E) on 20-26 November.

No locust information was received from other countries in the Region up to 31 December.

NEAR EAST

SAUDI ARABIA

On 1-5 December, immature swarms appeared for the first time this year from Jeddah to north of Madinah at 2448N/3908E, supplemented by additional immature swarms on the 9-14th. In total, there were about a dozen reports of swarms. Ground and aerial control operations covered a total of 5,400 ha during the first half of the month. During the same period, maturing swarms were reported on the Red Sea coast north of Qunfudah where laying was seen on the 10th. Ground control operations treated 7,430 ha in this area, primarily near Nawan (1939N/4111E). By the end of the month, hopper bands were reported in areas of previous laying and a swarm was seen in the north of the country.

YEMEN

A few isolated mature adults were reported from the northern Tihama at three locations near Al Harqih (1600N/4257E) and on the coast west of Aden at Kaweh (1238N/4422E) on 27 November. No locusts were seen on the coastal plains east of Aden up to Ahwer (1330N/4644E) on 20-24 November.

OMAN

An isolated mature adult was reported near Muscat on 14 December, and there was an unconfirmed report of a locust on the coast north of Muscat. No locusts were found during a survey undertaken west of the Wahiba sands and along the eastern to Ad Duqm (1938N/5738E) on 16-18 December.

KUWAIT

No locusts were reported during November and December.

No locust information was received from other countries in the Region up to 31 December.

SOUTH-WEST ASIA

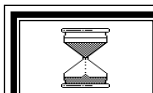
PAKISTAN

During the first half of December, groups of adults and patches of late instar hoppers were reported within a 5 sq. km area in the interior of Baluchistan near Kharan at Borko (2806N/6520E). Control operations were undertaken.

INDIA

No locusts were reported during the second half of November and the first half of December.

No locust information was received from other countries in the Region up to 31 December.

**FORECAST UNTIL MID-FEBRUARY 1996**

Forecasting terms used in this section to indicate the chances of a particular event happening are indicated below; every term is arranged within each category from most to least probable:

high probability	will, probably, almost certain, likely, expected
medium probability	may, might
low probability	possibly, perhaps, unlikely

WEST AFRICA

MAURITANIA

Current infestations of hoppers and adults in northern and central areas are expected to persist and slowly mature during the forecast period. There is a possibility that some breeding may be in progress but not detected in areas of recent rainfall in western Tiris Zemmour. By the end of the forecast period, adults and perhaps several groups and small swarms may move further north if temperatures start to increase.

MALI

Isolated solitary adults may be present in some wadis of the Adrar des Iforas.

NIGER

Isolated solitary adults may be present in parts of Tamesna and the south-east.

BURKINA FASO, CAMEROON, CAPE VERDE, CHAD, GAMBIA, GUINEA BISSAU, GUINEA CONAKRY and SENEGAL

No significant developments are likely.

NORTH-WEST AFRICA

ALGERIA

Scattered adults are expected to be present in parts of the southern Sahara. Other adults and perhaps a few groups may spread into the central Sahara during periods of warm southerly winds associated with eastward-moving depressions from the Atlantic and lay if rainfall occurs. By the end of the forecast period, adult groups may appear in the north-west if temperatures start to increase.

MOROCCO

Current infestations are expected to persist in the extreme south and slowly mature during the forecast period. Some breeding may be in progress but not detected in other areas of the south-west where rains have fallen. By the end of the forecast period, adults and perhaps several groups and a few small swarms may move further north and appear south of the Atlas Mountains if temperatures start to increase.

LIBYA and TUNISIA

No significant developments are likely.

EASTERN AFRICA

SUDAN

Breeding is expected to continue mainly in the Tokar Delta and to a lesser extent along the southern coastal plains. A few hopper bands and new swarms are likely to form throughout the forecast period. If conditions remain favourable, laying could occur again by the end of the forecast period.

ERITREA

Breeding may have commenced and, if so, will continue along parts of the coastal plains between Tio and Karora, especially those that have received recent rainfall. Low numbers of hopper bands and groups of adults may form.

SOMALIA

Isolated adults are expected to persist in parts of the northern coast and lay if rainfall occurs.

DJIBOUTI

Isolated adults are likely to persist and may breed in a few areas along the coast.

ETHIOPIA, KENYA, UGANDA and TANZANIA

No significant developments are likely.

NEAR EAST

EGYPT

Low to moderate numbers of solitary adults are likely to be present and may be breeding along the southern coastal plains. During the forecast period, breeding is expected to continue on a small scale.

SAUDI ARABIA

Breeding will continue on a small to moderate scale along parts of the coastal plains from Jizan to north of Jeddah and in the interior near Medinah. Consequently, hopper bands and small to moderate sized swarms are expected to form during the forecast period. Some swarms may gradually move north along the coast while others may start to move towards the spring breeding areas of the interior by the end of the forecast period.

YEMEN

Small scale breeding is expected to occur in some areas along the coastal plains from Zabid to the Saudi Arabian border. There is a low probability that small bands could form. Scattered adults are likely to persist along the coastal plains west and east of Aden.

OMAN

Isolated adults are expected to persist and may breed along parts of the Batinah coast and in the interior near Al Buraymi.

UAE

Isolated adults may be present and breeding along parts of the Fujayrah coast.

BAHRAIN, IRAQ, ISRAEL, JORDAN, KUWAIT, LEBANON, QATAR, SYRIA, and TURKEY

No significant developments are likely.

SOUTH-WEST ASIA

IRAN

Scattered adults are expected to persist in the interior of Baluchistan. A few isolated adults are likely to appear on the south-eastern coastal plains near Chabahar.

PAKISTAN

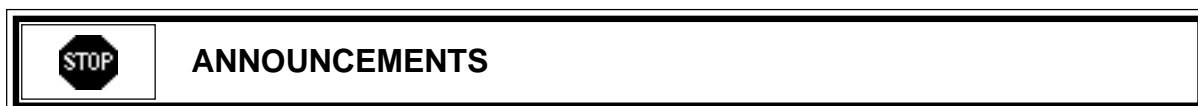
Low numbers of adults are expected to persist in the Kharan area. Additional adults are likely to be present further west in the Baluchi Desert and may have bred. Scattered adults may be present along the Makran coast and may start to lay at the end of the forecast period.

INDIA

Isolated adults may be present and persist at a few places in Rajasthan.

AFGHANISTAN

No significant developments are likely.



The Locust Group extends their very best wishes to affected countries and the international donor community for a happy and prosperous new year.



GLOSSARY OF TERMS

The following special terms are used in the Desert Locust Bulletin when reporting locusts:

Non-gregarious adults and hoppers

isolated	very few present and no mutual reaction occurring; 0 - 1 adult per 400 m foot transect (or less than 25 per ha). Other terms: a few.	
scattered	enough present for mutual reaction to be possible but no ground or basking groups seen; 1 - 20 adults per 400 m foot transect (or 25 - 500 per ha). other terms: some, low numbers.	
group	forming ground or basking groups; more than 20 adults per 400 m foot transect (or more than 500 per ha).	

Adult swarm and hopper band sizes

very small	swarm: less than 1 sq. km	band: 1 - 25 sq. m.
small	swarm: 1 - 10 sq. km	band: 25 - 2,500 sq. m.
medium	swarm: 10 - 100 sq. km	band: 2,500 sq. m - 10 ha
large	swarm: 100 - 500 sq. km	band: 10 - 50 ha
very large	swarm: more than 500 sq. km	band: more than 50 ha

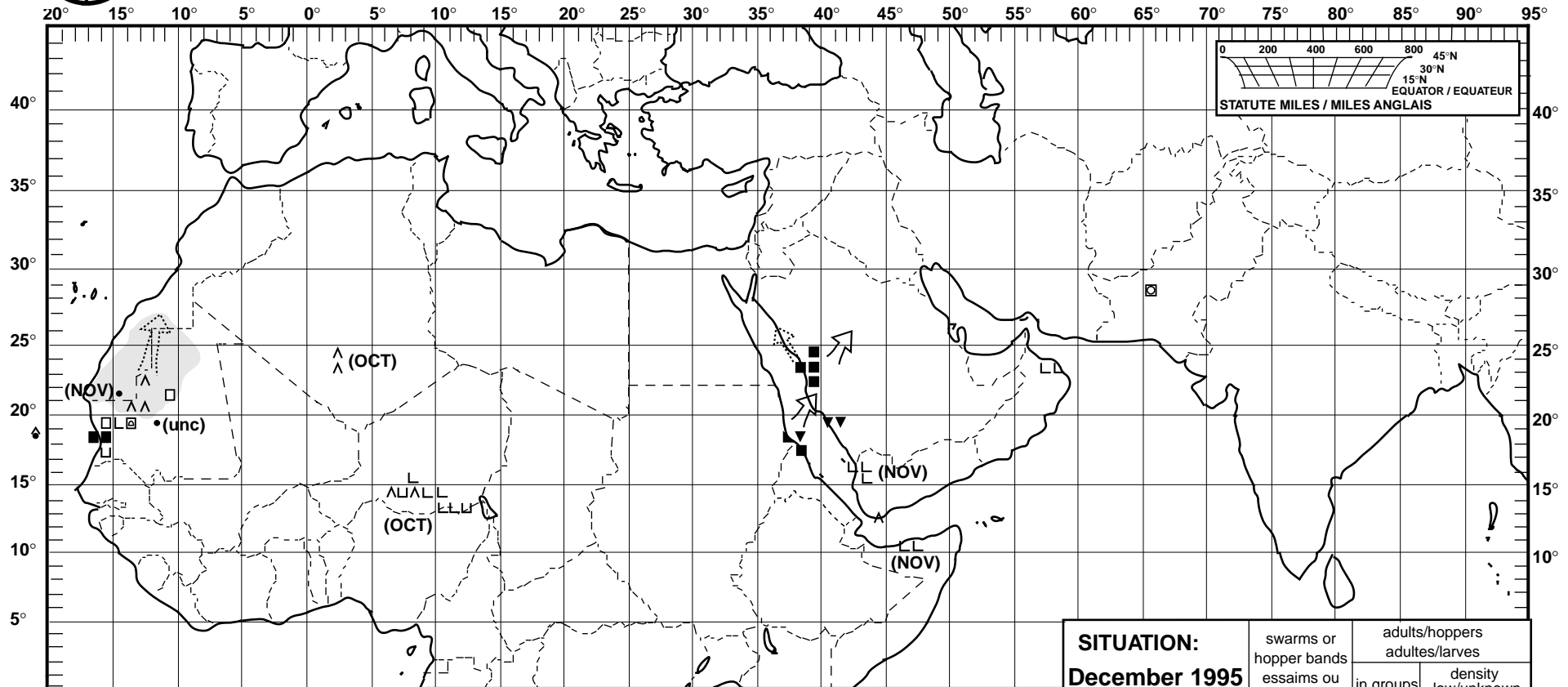
Other reporting terms

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.
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.
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.



Desert Locust: summary No. 208

Criquet pèlerin: situation résumée



FORECAST TO: PREVISION AU: 15.2.96	LIKELY PROBABLE	POSSIBLE POSSIBLE
current undetected breeding reproduction en cours et non détectée		
major swarm(s) essaim(s) important(s)		
minor swarm(s) essaim(s) limité(s)		
non swarming adults adultes non essaimant		

SITUATION: December 1995 decembre 1995	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)			

