

DESERT LOCUST BULLETIN

FAO Emergency Centre for Locust Operations



No. 244
(4 Feb 1999)



General Situation during January 1999 Forecast until mid-March 1999

The Desert Locust situation remained calm in January except for a small outbreak that continued in northern Sudan where control operations were in progress against hopper bands and swarms. Any adults that escape from this area are expected to move east to the Red Sea coastal plains where only insignificant populations have been reported so far. Good rains fell in some places along the coastal plains, breaking a two month dry spell. This should allow additional breeding to occur. Elsewhere, small groups of adults were detected and treated in south-eastern Libya. No other significant infestations were reported.

Central Region. Aerial and ground control operations continued in late December and early January in northern Sudan against hopper bands and swarms along the Nile and Atbara Rivers north of Khartoum. The infestations originated from a localized outbreak during the past few months. Nearly 14,000 ha have been treated since mid December. No significant populations have been detected in the winter breeding areas along either sides of the Red Sea primarily due

to unusually poor rains during the past two months and drying conditions. Only scattered adults were present in Saudi Arabia where good rains fell. These should allow another generation of breeding. Locust numbers are likely to remain low on both sides of the Red Sea but there remains a risk that a few groups or small swarms could appear on the coastal plains from northern Sudan.

Western Region. Small groups of adults were reported to be laying in one area in the extreme south-east of Libya near the borders of Egypt and Sudan in late January. The populations probably originated from local breeding during the past two months rather than a recent invasion. They do not appear to be linked to the infestations in northern Sudan. Although ground operations treated 1,250 ha of adults, hatching and formation of small hopper groups could occur in early March. These infestations do not represent a threat to other countries in the region. Scattered adults were reported in south-western Mauritania and similar populations are probably present in parts of the north. No significant developments are expected.

Eastern Region. No locusts were reported except for isolated adults in south-eastern Iran. As rains have started to fall in the spring breeding areas of Baluchistan in western Pakistan, low numbers of adults are likely to appear and may start to breed by the end of the forecast period. No significant developments are expected.

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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Weather & Ecological Conditions in January 1999

Good rains fell on the Red Sea coastal plains and in the interior of Saudi Arabia during the first half of January. Light to moderate rains also fell at times south of the Atlas Mountains in North-West Africa, on the coasts of northern Oman and southern Iran, and in western Pakistan. Vegetation in these areas is either already green or will become green.

In the **Near East**, light to moderate rains fell during the first half of January on the Red Sea coastal plains of Saudi Arabia breaking a two month dry spell (Fig. 1). Rainfall was heaviest near Mecca and Jizan but light showers also fell on the northern coast near Yenbo and Wejh as well as in the interior near Najran, Medinah, Hail and Gassim. As a result, vegetation is green in coastal areas and conditions are favourable for breeding. Conditions are less favourable in the interior due to low temperatures. Light to moderate rains were reported on the Batinah coast of northern Oman.

In **Eastern Africa**, light rains fell in a few places on the Red Sea coast of Sudan and Eritrea at mid month. These may have been associated with the rain that fell on the eastern side of the Red Sea but they were considerably less in comparison. Consequently, unusually dry conditions are thought to prevail along most of the coastal plains of Eritrea and Sudan where breeding is likely to be limited to just a few wadis and cropping areas such as the Tokar Delta. Light rains fell in parts of the interior of Sudan near Kassala, Wad Medani and El Obeid. Good breeding conditions persisted in northern Sudan near Atbara in early January.

In **North-West Africa**, light to moderate rains fell at times throughout the month at several places on the southern side of the Atlas Mountains in Morocco and Algeria. These rains extended to coastal areas of Morocco between Tan-Tan and Agadir and into the central Sahara of Algeria. Although green vegetation was starting to develop on the southern coastal plains of Morocco and north of the Tademait Plateau in the northern Sahara of Algeria, the prevailing low temperatures were not favourable for locust breeding. Good rains were also reported in southern Tunisia.

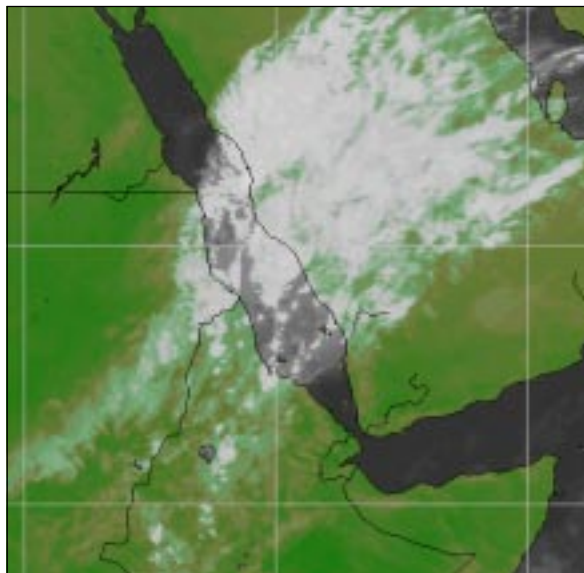


Figure 1. Clouds over the Red Sea area in mid January. Light to moderate rainfall was reported along the coastal plains and in the interior of Saudi Arabia and in eastern Sudan.

■ moderate □ heavy

In **West Africa**, dry weather continued in most countries. Light showers fell in a few places of northern Mauritania where low temperatures prevailed. Green vegetation was present in some low lying areas and wadis of northern Mauritania.

In **South-West Asia**, light to moderate showers were reported along the coast of southern Iran and in some coastal and interior areas of Baluchistan in western Pakistan. Breeding conditions may start to improve in some of these places. Light rains fell in the Cholistan Desert of eastern Pakistan and in Rajasthan, India.



Area Treated

Libya	1,250 ha	(26-31 Jan)
Sudan	11,250 ha	(19-31 Dec 1998)
	2,450 ha	(1-8 Jan 1999)



Desert Locust Situation and Forecast

(see also the summary on the first page)

WEST AFRICA

Mauritania

• SITUATION

In early January, scattered solitary adults were present in the south-west in Brakna east of Aleg (1702N/1358W).

• **FORECAST**

Low numbers of adults will prevail in the south-west. Similarly, adults are expected to be present and persist in a few areas of the north between Akjoujt and Zouerate, and perhaps near Bir Moghreïn.

Mali

• **SITUATION**

No reports received.

• **FORECAST**

Low numbers of locusts may be present and could persist in a few areas in the Adrar des Iforas.

Niger

• **SITUATION**

No reports received.

• **FORECAST**

A few isolated adults may be present and could persist in a few areas of Tamesna.

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 reported during January.

• **FORECAST**

Scattered adults are likely to be present in some places in the central and southern Sahara. Similar populations may appear south of the Atlas Mountains near Bechar during periods of warm southerly winds. Small scale breeding may occur in areas of recent rainfall.

Morocco

• **SITUATION**

No locusts were reported during January.

• **FORECAST**

Isolated adults may be present or could appear in a few places south-east of the Atlas Mountains and in the Adrar Souttoug region of the extreme south-west.

Tunisia

• **SITUATION**

No locusts were reported during December.

• **FORECAST**

No significant developments are likely.

Libyan Arab Jamahiriya

• **SITUATION**

Groups of adults at densities of up to 15 locusts per sq. metre were reported to be laying eggs during the last week of January in a few wadis on the western side of Jebel Uweinat (2156N/2504E) near the borders of Egypt and Sudan. These adults are thought to have come from local breeding that occurred last November or December in the Uweinat area. Ground control operations treated 1,250 ha.

• **FORECAST**

Small scale laying will occur near Jebel Uweinat early in the period by any adults that are not detected or controlled. Subsequent hatching will be delayed by cool temperatures and is likely to commence in early March. The early instar hoppers will probably concentrate in the limited areas of vegetation available, where they could form groups. The extent of the breeding will be limited to a just a few wadis or low-lying areas.

EASTERN AFRICA

Sudan

• **SITUATION**

During the last week of December and the first week of January, aerial and ground control operations continued in the northern interior primarily along the Atbara River south-east of Atbara (1742N/3400E) and to a lesser extent in the Baiyuda Desert about 100 km west of Atbara. A total of 11,600 ha was treated by air and 2,100 ha by ground. The infestations were a mixture of dense hopper bands of all instars, fledglings, and low to high density immature and mature swarms. In late December, swarm laying was reported at two places in the Baiyuda Desert. Scattered solitary adults and two swarms were seen south of Derudeb (1731N/3607E) on 27 December which may indicate that adults are now moving towards the Red Sea coastal plains.

In early January, hatching continued along the Atbara River and most of the infestations consisted of



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hopper bands. No reports of locusts were received from the Red Sea coastal plains.

• **FORECAST**

Locust numbers are expected to decline in the northern interior as a result of control operations and uncontrolled adults will migrate towards the Red Sea coastal plains. Hopper development will be inhibited by low temperatures. On the Red Sea coastal plains, there still is a risk that a few small groups or swarms may appear and lay in areas of recent rainfall on the coast or in Wadi Oko/Diib. Small scale breeding by solitary adults may already be in progress in Tokar Delta, on the adjacent coastal plains and perhaps on the western side of the Red Sea Hills near Derudeb.

Eritrea

• **SITUATION**

No locusts were reported during January.

• **FORECAST**

Scattered solitary adults are likely to be present in a few places along the Red Sea coastal plains. Breeding may occur in some wadis but it will be limited due to the current dry conditions unless further rains fall.

Somalia

• **SITUATION**

No reports received during December and January.

• **FORECAST**

Low numbers of solitary adults are likely to be present and persist in some interior and coastal areas of the north-east. Small scale breeding is expected to occur if rains fall.

Ethiopia

• **SITUATION**

No locusts were reported in the south-east part of the country near the Somali border during the first three weeks of January.

• **FORECAST**

Isolated adults may be present near Dire Dawa.

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**

Scattered solitary adults continued to mature along the Red Sea coastal plains between Jeddah and the Yemen border from 23 December to 9 January. Most of the locusts were present between Jizan (1656N/4233E) and the Yemen border while a few were seen near Qunfidah (1909N/4107E) and Mecca. Densities varied from 50 to 100 adults per ha.

• **FORECAST**

Low numbers of adults will persist along parts of the Red Sea coastal plains between Yenbo and Jizan and breed on a small scale where recent rains have fallen. As a result, locust numbers will gradually increase as hoppers appear during the forecast period. There remains a low risk of adults or a few small groups or swarms arriving from Sudan.

Yemen

• **SITUATION**

No reports were received during January.

• **FORECAST**

Low numbers of adults are likely to be present and will persist along parts of the coastal plains of the Red Sea and Gulf of Aden. Small scale breeding is expected to occur but may be limited by the current dry conditions unless further rains fall.

Egypt

• **SITUATION**

No reports were received during January.

• **FORECAST**

Low numbers of adults may be present and breed in a few places on the southern coastal plains of the Red Sea. There remains a risk that these may be supplemented by any adults and perhaps a few small groups or swarmlets that could arrive from northern Sudan.

Kuwait

• **SITUATION**

No locusts were reported during December.

• **FORECAST**

No significant developments are likely.

Oman

• **SITUATION**

No reports received.

• **FORECAST**

No significant developments are likely.



Announcements

UAE

- 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

Isolated mature adults were present at a few places on the coastal plains near Chabahar (2518N/6038E) from 29 December to 11 January. No locusts were seen on the coastal plains near Bushehr and Jask during January.

- FORECAST

Isolated adults are expected to persist in a few places along the south-eastern coastal plains.

Pakistan

- SITUATION

No locusts were reported during January.

- FORECAST

Low numbers of solitarious adults are likely to appear in coastal areas of Baluchistan and start to breed by the end of the forecast period.

India

- SITUATION

During the second fortnight of December, isolated adults were present in Barmer District of Rajasthan at Panchla (2559N/7010E) on the 26th.

No locusts were reported during the first half of January.

- FORECAST

Isolated adults will persist in a few places in Rajasthan. No significant developments are likely.

Afghanistan

- FORECAST

No significant developments are likely.

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.

Locust meetings in February. A meeting on the Common Strategies and Restructuring of Organizations involved in Desert Locust Control in the Western Region will be held in Rome on 22-24 February.



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**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

- 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

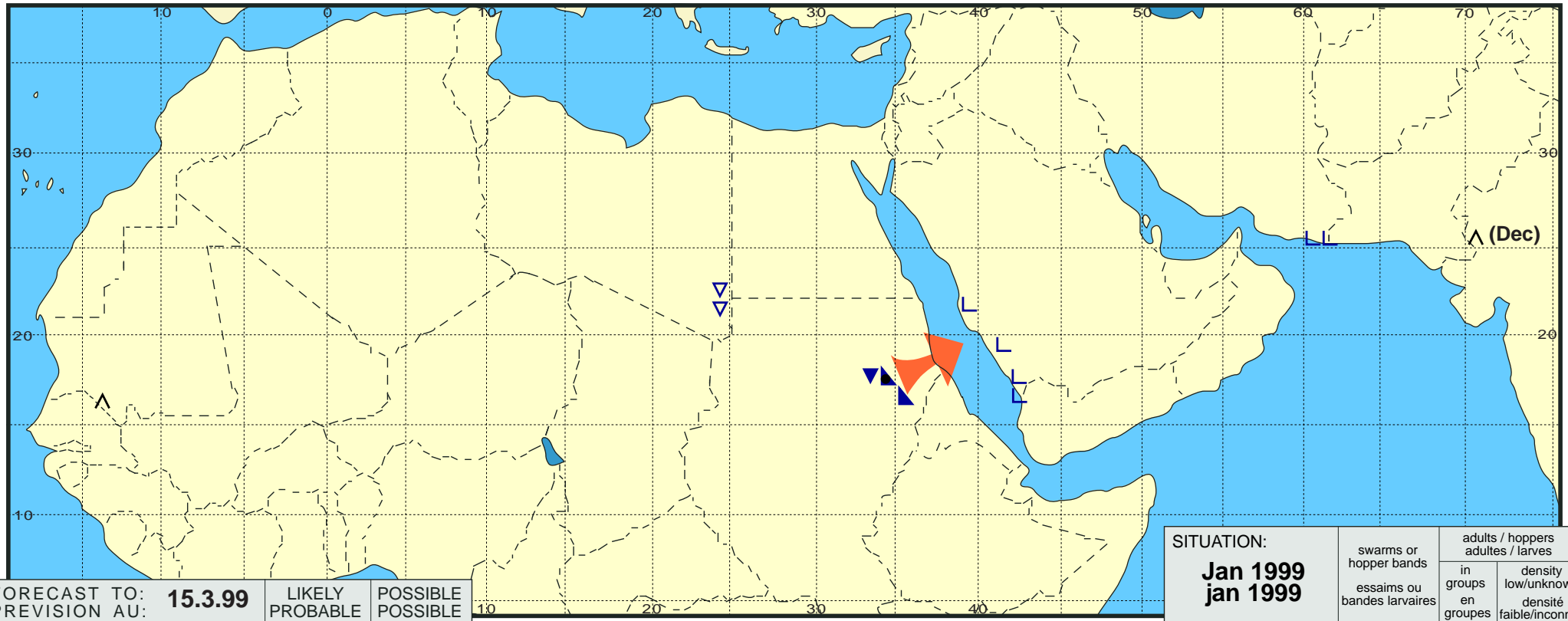
- a period following a recession marked initially by a very large increase in locust numbers and contemporaneous outbreaks followed by the production of two or more successive seasons of transient-to-gregarious breeding in complimentary seasonal breeding areas in the same or neighbouring Desert Locust regions.



Desert Locust Summary

Criquet pèlerin situation résumée

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FORECAST TO: PREVISION AU:	15.3.99	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: Jan 1999 jan 1999	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)			