

DESERT LOCUST BULLETIN

FAO Emergency Centre for Locust Operations



No. 236
(1 June 1998)



General Situation during May 1998 Forecast until mid-July 1998

Small infestations of Desert Locusts persisted in spring breeding areas in the Arabian Peninsula and South-West Asia. Control operations were carried out on a limited basis in some of these places. As dry weather prevailed in most countries, no further breeding is expected. Adults produced during the spring will move towards the summer breeding areas in Sudan and along the Indo-Pakistan border where they will lay with the onset of the seasonal rains. The scale of this movement is expected to be small.

Central Region. Good rains fell in the south-western interior of Saudi Arabia in early May. Consequently, adults could appear in those areas and lay. Control operations continued during the first half of the month on the northern coastal plains of the Red Sea in Yemen where hopper bands were present and starting to form small immature swarms. Reports from eastern Yemen indicate that some of these adults and swarms probably moved east to coastal and interior areas. As conditions are dry in these places, the locusts are likely to continue to move north-east towards South-West Asia or perhaps into adjacent areas of Saudi Arabia that received rain. Isolated

adults were present on the coastal plains of northern Somalia. Breeding which was previously anticipated in coastal and interior areas is now unlikely due to unfavourable conditions. Small infestations of hoppers and adults were treated at an oasis in the Western Desert of Egypt. During the forecast period, low numbers of adults are expected to appear in the summer breeding areas of western, central and eastern Sudan and in western Eritrea.

Eastern Region. As a result of breeding during the spring in the interior of Baluchistan, small scale ground control operations were carried out against hoppers and adults in Iran and against adults in Pakistan. Locust numbers were much lower in coastal areas due to dry conditions. Isolated adults were present in one location of Rajasthan, India. During the forecast period, numbers will decline in Baluchistan of Iran and Pakistan as adults move towards the summer breeding areas along the Indo-Pakistan border. This movement is expected to be on a small scale and adults will lay with the onset of the monsoon rains.

Western Region. No locusts were reported and dry conditions prevailed in the region. During the forecast period, low numbers of adults are expected to appear in the summer breeding areas of southern Mauritania, and northern Mali and Niger. These will lay with the onset of the seasonal rains. The scale of the breeding this summer is expected to be very small.

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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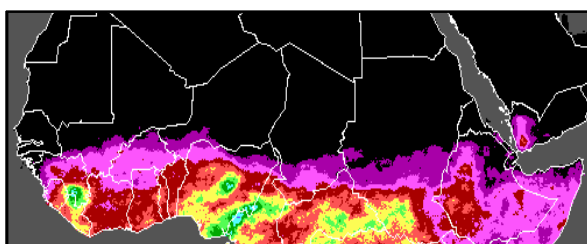


Weather & Ecological Conditions in May 1998

Dry weather continued for the second month in a row in most Desert Locust breeding areas. Only a few isolated showers were reported from some countries. Ecological conditions in most areas are not favourable for breeding on a significant scale.

In the **Near East**, good rains fell during the first week of May in the south-western interior of Saudi Arabia. Najran reported 52 mm and Wadi Dawasir received 123 mm. As a result, conditions are expected to be favourable for breeding. Light rains fell in some areas along the northern coast of the Red Sea between Medinah and Wejh. In Yemen, dry weather and high temperatures prevailed in the southern and eastern regions and unfavourable breeding conditions were reported. Similar conditions are expected on the Red Sea coastal plains.

In **Eastern Africa**, light rains fell in some areas of western, central and eastern Sudan on the 11th and heavy rains were reported from Nyala (72 mm). Except for the latter area, these rains were probably not enough to improve breeding conditions. In Ethiopia, light to moderate rains were reported from Dire Dawa at times and green vegetation was reported in the nearby Railway Area. In northern Somalia, light rains fell sporadically on the escarpment where vegetation was green. High temperatures and dry conditions prevailed on the Gulf of Aden coastal plains. The south-westerly wind flow associated with the Asian monsoon became established over the Horn of Africa during the last days of the month.



Rain-bearing clouds associated with the ITCZ moved north in West Africa but remained south of the summer breeding areas during May. Some clouds were present over Yemen and the Horn of Africa



In **South-West Asia**, moderate rains fell in the interior of Baluchistan in Pakistan where Nushki received 35 mm during the first half of the month. Consequently, breeding conditions were reported to be favourable in this area. Elsewhere, vegetation was drying out in coastal areas of Pakistan and Iran and not as favourable for breeding. Although light rains fell in a few places of the summer breeding areas of Rajasthan in India and Cholistan in Pakistan, dry conditions prevailed.

In **West Africa**, the Inter-Tropical Convergence Zone (ITCZ) moved progressively northwards reaching about 15°N by the end of the month. During periods of eastward-moving Mediterranean depressions, the ITCZ temporarily reached latitudes of 15-22°N over the region. However, very little rainfall was reported except for sporadic and isolated showers in a few places of central and south-western Mali. During the first half of the month, Hombori reported 114 mm in two days, Nara 71 mm and Niore 37 mm. Light rains fell near Tahoua, Niger and in a few places of southern Mauritania. Unfavourable breeding conditions prevailed in nearly all areas.

In **North-West Africa**, no significant rainfall was reported except for 65 mm that may have fallen at In Salah in central Algeria on the 14th. Light rains fell on the 24-25th in eastern Algeria at Illizi. Conditions were not favourable for breeding.



Area Treated

	<u>currently reported</u>	<u>since Jan 98</u>
Egypt	420 ha (5-6 May)	50,267 ha
Eritrea		18,439 ha *
Ethiopia	200 ha (20 April)	2,450 ha
Iran	1,710 ha (8 May)	2,660 ha
Pakistan	no details (May)	
Saudi Arabia		280,107 ha
Somalia		1,300 ha
Sudan		20,642 ha
Yemen	852 ha (3-7 May)	21,456 ha

* since 24 Nov 1997



Desert Locust Situation and Forecast

(see also the summary on the first page)

WEST AFRICA

Mauritania

- **SITUATION**

No locusts were seen during the first half of May.

- **FORECAST**

Locust numbers will decrease in the north as conditions become unfavourable and adults move to move south and appear in summer breeding areas. The scale of this movement is expected to be very small.

Mali

- **SITUATION**

No reports received.

- **FORECAST**

Low numbers of solitarious adults may be present in a few of the major wadis in the Adrar des Iforas and Tilemsi Valley and lay eggs with the onset of the summer rains.

Niger

- **SITUATION**

No reports received.

- **FORECAST**

Low numbers of solitarious adults may be present in a few places of Tamesna and lay eggs with the onset of the summer rains.

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 reports received.

- **FORECAST**

A few isolated adults may be present in the central and southern Sahara. Laying could occur in the latter area if rains fall.

Morocco

- **SITUATION**

No reports received.

- **FORECAST**

No significant developments are likely.

Tunisia

- **SITUATION**

No locusts were seen in April.

- **FORECAST**

No significant developments are likely.

Libya

- **SITUATION**

No reports received.

- **FORECAST**

No significant developments are likely.

EASTERN AFRICA

Sudan

- **SITUATION**

No reports received.

- **FORECAST**

Locust numbers are expected to increase in Northern Darfur, Northern Kordofan, White Nile and the Eastern provinces as adults and perhaps a few small groups arrive from spring breeding areas. Small scale laying will occur with the onset of the summer rains.

Eritrea

- **SITUATION**

No reports received.

- **FORECAST**

Locust numbers are expected to increase in the western lowlands as adults arrive from spring breeding areas. Laying on a small scale will occur with the onset of the summer rains.

Somalia

- **SITUATION**

During the second half of April, several adult groups and small swarms were reported by locals moving



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over the escarpment towards eastern Ethiopia as conditions on the coastal plains became dry.

During May, isolated mature solitary adults were present at a few places along the coastal plains west of Berbera (1025N/4500E) and Gerisa (1036N/4326E). There was an unconfirmed report of a mature swarm on the escarpment near Weeraar (1015N/4314E) on the 17th. Elsewhere on the escarpment, no locusts were seen during surveys up to the 18th.

• **FORECAST**

Low numbers of solitary adults may be present on the escarpment and isolated hoppers may appear from earlier laying.

Djibouti

• **SITUATION**

No reports received.

• **FORECAST**

No significant developments are likely.

Ethiopia

• **SITUATION**

In late April, a 2 sq. km swarm was treated by air on the 20th in the Hado area (0927N/4240E) west of Jigjiga. No locusts were seen during surveys from 20 April to 7 May in the eastern region.

• **FORECAST**

Low numbers of adults may be present and persist in those areas that remain green between Dire Dawa and the Somali border.

Kenya, Tanzania and Uganda

• **FORECAST**

No significant developments are likely.

NEAR EAST

Saudi Arabia

• **SITUATION**

No reports received.

• **FORECAST**

Adults and perhaps a few small swarms may appear in the interior near Najran and Dawasir and breed in areas that received rainfall. Low numbers of locusts may persist on the southern Tihama near Jizan and breed if additional rains fall.

Yemen

• **SITUATION**

Low density hopper bands continued to be reported on the northern Red Sea coastal plains between Wadi Hairan (1617N/4300E) and the Saudi Arabian border in early May. An immature swarm of 2.5 sq. km was seen on the 4th indicating that small scale swarm formation was in progress. Control operations treated 430 ha from 3-6 May.

On the Gulf of Aden coastal plains, control operations were carried out during the first week of May against groups of first to fifth instar hoppers and fledglings at densities of up to 500 per sq. metre. A total of 422 ha were treated at several places east of Aden.

In the eastern region, farmers reported flying locusts on the coast near Ghashn (1525N/5140E) and in Wadi Haswein (1530N/5205E) and on the 11th. In Wadi Hadhramaut, a small immature swarm was seen on the following day in Wadi Al-Ain (1550N/4737E) which later split into two and moved further east.

• **FORECAST**

Isolated adults may persist on the northern Red Sea coastal plains near the Saudi Arabian border and breed if additional rains fall. Unless ecological conditions improve in the eastern region, adults are expected to fly over the area.

Egypt

• **SITUATION**

Ground control operations were undertaken in the Western Desert against 420 ha of low density mature adults and first and second instar hoppers at Sheikh Uweinat oasis (2240N/2845) on 5-6 May. Hopper densities were reported to be up to 5 per sq. metre. No locusts were seen during surveys along the Nile, in the Red Sea Hills and along the south-eastern Red Sea coastal plains up to the 13th.

• **FORECAST**

Low numbers of adults may persist and breed in a few oases near Lake Nasser and in the Western Desert.

Kuwait

• **SITUATION**

No locusts were seen in April.

• **FORECAST**

No significant developments are likely.

Oman

• **SITUATION**

No reports received.

• **FORECAST**

No significant developments are likely.

UAE

• SITUATION

No locusts were seen up to the end of April.

• FORECAST

No significant developments are likely.

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

• FORECAST

No significant developments are likely.

SOUTH-WEST ASIA

Iran

• SITUATION

In late April and early May, small scale breeding occurred in the interior of Baluchistan west of Iranshahr (2715N/6041E) where first to fourth instar hoppers at densities of up to 20 hoppers per bush were present mixed with scattered mature adults. Lower densities of hoppers and immature adults were reported further west in the Jaz Murian Basin (2717N/5842E). No locusts were seen on the coastal plains of Bushehr in south-western Iran during the same period. On the south-eastern coastal plains, 1710 ha of hoppers at densities of 20-30 per sq. m mixed with high numbers of adults were treated near Chabahar (2518N/6038E) on 8 May.

• FORECAST

Locust numbers will decrease in coastal and interior areas of Baluchistan as conditions become dry and adults move east towards the Indo-Pakistan summer breeding areas.

Pakistan

• SITUATION

During the first fortnight of May, there was an increase in the number of locations reporting locusts in the spring breeding areas of Baluchistan. Scattered adults at densities of up to 24 adults per location were present at 27 places in the interior districts of Baluchistan near Khuzdar, Panjgur and Turbat and in the coastal districts of Gwadar and Pasni. Control operations were undertaken against higher numbers of solitary adults, up to 120 per ha, in the interior near Nushki at Hazar Gaft (2930N/6545E) on the 15th.

• FORECAST

Breeding may continue on a limited basis in a few places in the interior of Baluchistan. However, locust numbers will decline as adults move east towards the summer breeding areas of Cholistan and Tharparkar where they should appear and lay with the onset of the monsoon rains.

India

• SITUATION

Isolated solitary adults were present on 1 May at Lunkaransar (2829N/7345E) in Bikaner District, Rajasthan.

• FORECAST

Locust numbers are expected to increase in Rajasthan and Gujarat as adults arrive from the west. The scale of this migration is expected to be small. Breeding will commence with the onset of the monsoon rains.

Afghanistan

• FORECAST

No significant developments are likely.



Announcements

Bulletin 236, French version: The PDF and graphics formats of the French version of this Bulletin will be distributed on 15 June by email and fax. In the meantime, all recipients of these formats will receive the text version. The Locust Group apologizes for any inconvenience this may cause.

New telephone and fax numbers for FAO HQ: Starting **19 June**, all telephone and fax numbers at FAO will be modified as follows: +39.6.570.99999 will become +39.06.570.99999. Accordingly, the modified numbers for the Locust Group will be:

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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

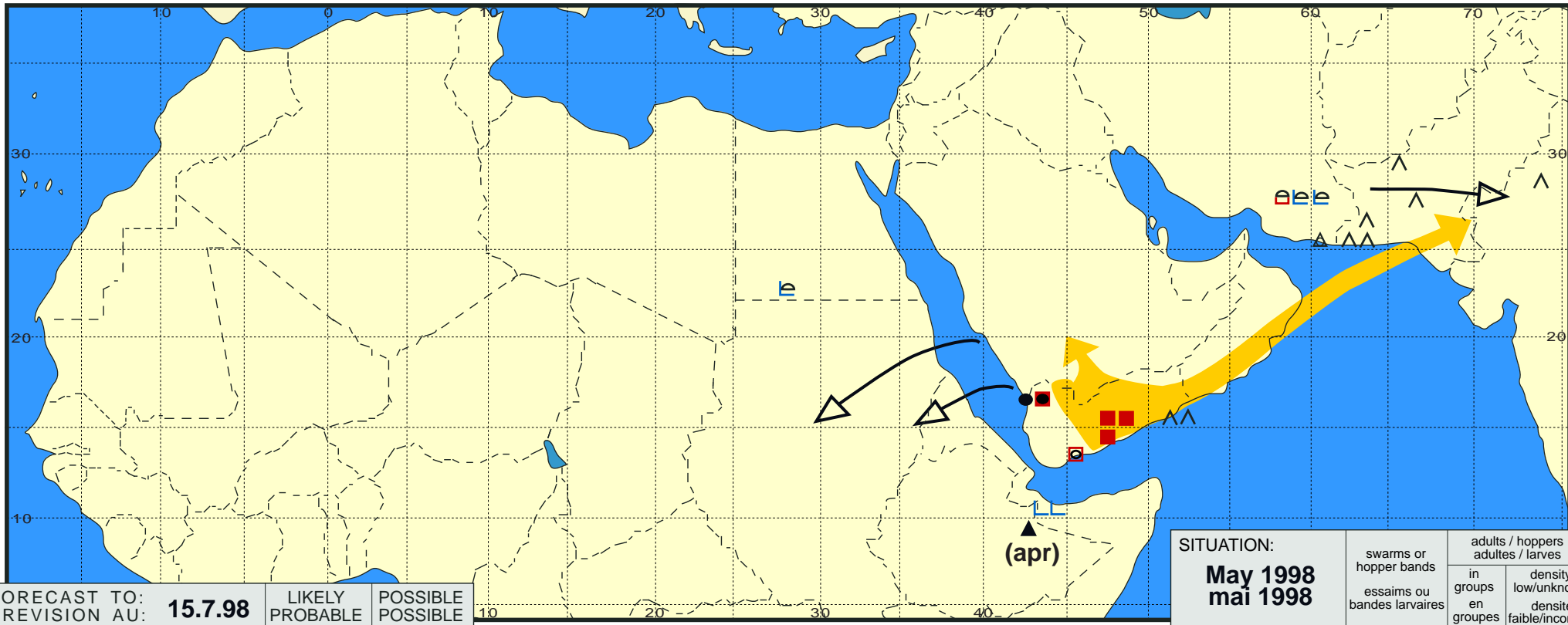
- a period following a recession marked initially by a very large increase in locust numbers and contemporaneous outbreaks followed by the production of two or more successive seasons of transient-to-gregarious breeding in complimentary seasonal breeding areas in the same or neighbouring Desert Locust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



Desert Locust Summary

Criquet pèlerin situation résumée

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FORECAST TO: PREVISION AU:	15.7.98	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: May 1998 mai 1998	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)			